

**MANAGEMENT**

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**DISCUSSION**

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**& ANALYSIS**

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## DISASTER RELIEF FUND

**T**he Robert T. Stafford Disaster Relief and Emergency Assistance Act authorizes the President to provide federal assistance to supplement state and local governments' disaster response, recovery, preparedness, and mitigation efforts. FEMA provides this assistance through the President's Disaster Relief Fund (DRF). The President can declare a major disaster upon the request of the Governor of the affected state. A declaration authorizes FEMA to provide federal disaster assistance. Each declaration specifies the type of incident covered, the time period covered, the types of disaster assistance available, the counties affected by the declaration, and also identifies the Federal Coordinating Officer who manages the response and recovery efforts.

The President also can declare emergencies. Under such a declaration, only emergency response activities, debris removal, and disaster housing programs may be initiated. DRF expenditures for an emergency are limited to \$5 million per declaration, unless Congress is notified otherwise. In addition, the FEMA Director is authorized to provide fire suppression assistance to supplement the resources of communities when fires threaten such destruction as would warrant a major disaster declaration.

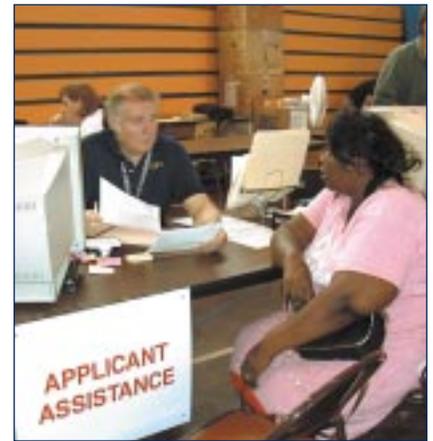
The Stafford Act directs FEMA to address the short, medium, and long-term consequences of a disaster on both individuals and communities. Following a Presidential declaration, FEMA's immediate priorities are to protect a community's health and safety, address victims' needs, and restore the functioning of civil government. Next, the Agency focuses on aiding communities and individuals to rebuild damaged property and facilities. The long-range objective is to reduce the impact of future events through mitigation and strength-

ened community preparedness. Careful management is required to ensure that short-term actions do not counteract FEMA's long-term goals.

### DISASTER ASSISTANCE PROGRAMS

Disaster assistance is provided primarily through Individual Assistance, Public Assistance, and the Hazard Mitigation Grant programs.

Individual Assistance Programs (also known as Human Services) provide direct support such as housing assistance to families and individuals recovering from disasters; Individual and Family Grants to cover the loss of uninsured



FEMA disaster employee provides assistance in aftermath of a disaster.

personal property; and unemployment, crisis counseling and legal service assistance to individuals.

The Public Assistance Program (also known as Infrastructure) provides grants to states, and in some cases, Indian Tribal Governments, that supplement the efforts of state, county, municipal governments and eligible private non-profit organizations in rebuilding after disasters. These programs pay for the repair of damaged facilities and emergency measures to save lives and protect public health, safety, and property. Repair and rebuilding is performed in accordance with applicable local and state codes, after taking into



Residents, friends and neighbors pitch in to save the belongings from a condominium complex that was heavily damaged by a landslide in California.

consideration reasonable costs, to mitigate against future damage. Public Assistance provides assistance to remove debris, reinstitute protective measures, and repair roads, bridges, water control facilities, public buildings, public utilities, hospitals, parks and recreational facilities.

The Hazard Mitigation Grant Program (HMGP) provides grants to states to implement long-term hazard mitigation measures after a major disaster declaration. The HMGP is designed to ultimately reduce the future needs for federal disaster assistance by encouraging the building of an environment increasingly resistant to the effects of natural hazards. Examples of projects include elevation of flood-prone buildings, acquisition or relocation of buildings at risk, and the seismic strengthening of structures.

In FY 2000, FEMA obligated a total of \$2.4 billion from the DRF for all ongoing disaster activities. Included in that total is \$507 million for 40 major declarations in FY 2000, another \$10.9 million for 5 emergency declarations in FY 2000, and \$26.2 million for 13 fire suppression assistance approvals.

### **DISASTER ASSISTANCE SUPPORT**

When disaster strikes, FEMA assesses the damage, decides what assistance is needed, and makes disaster aid available. This assistance is provided through a disaster operations support infrastructure, called the Disaster Support Activity (DSA). In FY 2000, FEMA obligated \$126.4 million for DSA operations. The DSA provides for fundamental ongoing capabilities that are not readily attributable to any one specific declared disaster. Although many operational functions contribute to delivery of disaster assistance, disaster assistance is only as good as the support that is provided by effective logistics and information systems. FEMA's Operations Support Directorate provides logistics support, while information systems are supplied through the Information Technology Services Directorate.

### **LOGISTICS SUPPORT**

#### **RE-ENGINEERING FEMA'S DISASTER LOGISTICS MANAGEMENT**

FEMA is measured by its ability to meet the needs of the American public, Congress, and the President in times of disaster. In order to fulfill this responsibility FEMA completely re-engineered its disaster logistics management program. Property accountability,

operational readiness, process streamlining, and equipment recycling became significant themes. Major initiatives included: centralizing the management, storage and deployment of critical disaster-response property; using information technology to support key resource-management processes, including property management, tracking and accountability; and ensuring quality and consistency in logistics management practices. Since then, these efforts have combined to create a significantly improved logistics management environment for FEMA's disaster operations and avoid millions of dollars in annual costs to the taxpayer.

### **CENTRALIZED PROPERTY MANAGEMENT**

Centralizing the management, storage and deployment of critical disaster-response property focused on consolidating agency disaster equipment and supplies. The Disaster

Information

Systems

Clearinghouse

(DISC), now the Agency's principal source of information technology

and telecommunications equipment for disaster operations, was the first of these efforts. It

was followed by the creation of three Territory

Logistics Centers

(TLC), now the Agency's principal

source of disaster field office equipment and supplies as well as victim support commodities like

food, water, shelter, and mobile power. More recently, Urban Search and Rescue packages, Global

Positioning Systems, and over 175 Agency Go-Kits designed to support specific disaster programs have

been added to the inventory, further leveraging the benefits of centralized property management.

These efforts enhanced strategic asset visibility and management, improved accountability and increased the speed at which personal property could be

deployed to disaster sites. Standardized, pre-packaged equipment and supply suites could now be

strategically allocated and rapidly deployed to disaster field locations. As locations close, the equip-



FEMA PHOTO BY WILLIAM R. BECKERT

These generators bring power to communities hit by a hurricane.

ment recycles back for centralized control and accountability, refurbishment, quality assurance, and repackaging for use again. Since June 1995, over 95% of all shipments have consisted entirely of recycled equipment. This fact, combined with lower costs due to centralized competitive purchasing contracts, and streamlining of the contents of each suite have resulted in decreasing average value of support required at each DFO over the past several years.

At the same time, equipment reliability has dramatically increased because trained technicians thoroughly inspect and test each item before it is shipped. Recycling dramatically reduces FEMA's need to repeatedly purchase new equipment when disasters are declared, thereby avoiding costs. Cost avoidance figures increased by \$32.8 million in FY 1998 over FY 1997, \$23.2 million in FY 1999, and over \$11.8 million in FY 2000. The cumulative total for cost avoidance since the DISC and TLC began operations in FY 1996 and FY 1997 respectively is over \$92 million.

### LEVERAGING INFORMATION TECHNOLOGY

Using information technology to support key resource management processes has greatly enhanced FEMA response capabilities. FEMA has developed two significant tools to aid in managing disaster logistics efforts. These include an automated property accountability system and a system to track resource deployments to, within and from a disaster area. The Logistics Information Management System (LIMS) serves as the agency's single automated property management system and plays a major role in providing a productive property management program for FEMA. LIMS contains over a quarter of a million master items for an inventory value of approximately \$300 million. The property is constantly being accounted for as it moves to the disaster location where it is most needed.

FEMA PHOTO BY WILLIAM R. BECKERT



FEMA's Territory Logistics Centers store and warehouse tons of vital materials for disaster response.

### ENSURING QUALITY LOGISTICS MANAGEMENT PRACTICES

Proactive technical assistance has contributed greatly to the improvement of disaster logistics. An Automated Inventory Control (AIC) group provides the field with LIMS and property management field training; the group has supported more than 200 disaster locations and has trained well over 100 staff since its inception in March 1996. AIC, DISC and TLC staff also support field set-up and closeout and have reduced the cost of outstanding inventory at closed disaster sites by more than \$2 million this past year alone.

Efforts to improve logistics management operations in FEMA have resulted in cost avoidance and savings that will soon approach \$100 million. The DISC and TLC warehousing operations and maintenance programs provide for the reutilization of government assets on a daily basis. The AIC group has provided the means to track, analyze, and provide disposition of assets to property managers' agency-wide through effective use of a centralized automated system, LIMS. This system and support program encourages effective inventory management by including all aspects of the property management cycle, from acquisition to disposal.

By centralizing and automating property and other logistics management systems and warehousing operations, FEMA can more effectively reutilize government assets. This multi-faceted re-engineering/ re-invention effort to streamline and coordinate logistics management activities strengthens FEMA's capacity to responsibly and rapidly provide the necessary resources while reducing the cost to the taxpayer.

FEMA PHOTO BY WILLIAM R. BECKERT



FEMA refurbishes and recycles equipment at the DISC.

### NATIONAL EMERGENCY MANAGEMENT INFORMATION SYSTEM

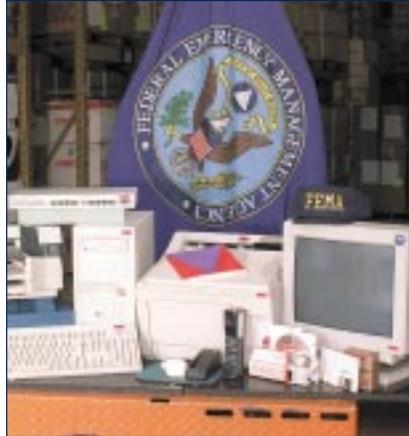
FEMA developed and implemented the National Emergency Management Information System (NEMIS)

to improve federal disaster response activities, to reduce operations costs, and to speed the delivery of disaster benefits. NEMIS is an integrated system that provides FEMA, states, and other federal agencies with automated services to perform disaster operations. NEMIS supports all phases of emergency management from state mitigation planning to situation assessments, providing disaster assistance, command and control, programmatic programming, emergency support, and mitigation operations. NEMIS provides users at regional, headquarters, state, and DFO locations with standard processes to support disaster management wherever a disaster occurs.

NEMIS is an information resource that enables FEMA to integrate preparedness, situation assessment, preliminary damage assessment (PDA), and information and planning operations with FEMA programs and disaster assistance. This integration enables rapid and coordinated transition from monitoring an incident to managing disaster declarations, setting up DFO's, and assisting communities and individuals affected by the disaster. In addition to providing automated support for a full range of emergency management processes, NEMIS interfaces with other systems, including the Agency's financial, acquisition, and personnel systems; National Flood Insurance Program database; Preparedness, Training, and Exercise systems; logistics databases; National Fire Incident Reporting System; and other agencies' systems. NEMIS provides automated support for joint FEMA/state functions such as managing public assistance projects and grants, processing individual and family grants and conducting preliminary damage assessments.

In addition, FEMA maintains close partnerships with federal agencies that provide disaster-related services. NEMIS automates aspects of these relationships, such as the process of issuing and tracking mission assignments to other federal agencies to provide disaster assistance, or for making Small Business Association loan determinations. NEMIS also works with several other federal agency systems to replace manual ad-hoc transmission of data. Coordinated exchange of information reduces duplication of effort in providing disaster assistance and improves customer service.

FEMA PHOTO BY WILLIAM R. RECKERT



Computer workstations packaged in pallets for rapid shipment to disaster field offices.

NEMIS has allowed the Individual Assistance Program to consolidate the eligibility review of disaster housing applications to one of three locations, and the certification and payment process to one location. In addition, the states have electronic access for reviewing and processing individual and family grant applications as well as the mitigation and infrastructure grant applications processes.

Consistency and timeliness of processing grant applications and disaster housing payments have improved as a result of the interface between NEMIS and the Agency's financial system. The single point of entry has eliminated the costs from redundant data entry into multiple systems and reduced keying errors. NEMIS has consolidated information within each database that is accessible and available to the appropriate users, wherever they are located: DFO's, regions, processing centers, or FEMA headquarters.

NEMIS allows FEMA to respond faster, more consistently, and at a lower cost. During FY 2000, NEMIS supported 40 major disaster declarations, five emergency, and 47 fire suppression assistance requests. Using electronic transfers with automated interface to the Agency's financial and acquisition systems, NEMIS processed Disaster Relief Fund allocations totaling \$1,701,339,640 since implementation.

FEMA's NEMIS has been recognized by *Federal Computer Week*, which gave it a Federal Top 100 Award; by *Government Computer News* with its Agency Award; and by favorable reports in industry publications.

## **DIRECT DISASTER PROGRAMS FINANCIAL INFORMATION**

Disasters are a fact of life. FEMA has mitigated, prepared for, built robust response and recovery systems, and attempted to institutionalize, streamline, and infuse cost consciousness and efficiency at every level within the organization and at every level of government. Nevertheless, the financial costs of disasters have escalated and have a direct relationship to the busiest decade of disaster events in history. Despite a lower than normal disaster

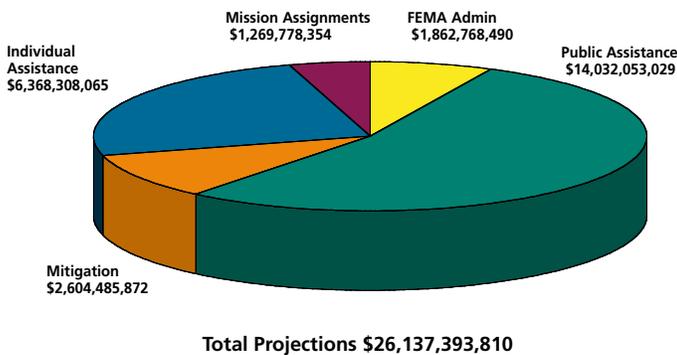
season in FY 2000, overall the number and severity of disasters increased dramatically this past decade.

From our most expensive disaster, the Northridge earthquake of 1994, to record flooding in the Pacific Northwest in 1996 and the Red River Valley in 1997, to the unprecedented ice storms and tragic tornadoes of 1998 and 1999, and devastating Hurricane Floyd in 1999, disaster relief costs reflect this historic trend of severe weather events over the past 10 years.

Every year except 1991 and 2000 has had at least one big disaster costing more than \$500 million. Another major factor in increased expenditures for disaster relief is the types of disasters that have been occurring. Projected assistance resulting from the January 1994 Northridge earthquake alone is equal to 27 percent of all projected costs from the DRF since 1991. FEMA's cost projections for disasters declared in FY 1991-2000 total more than \$26 billion.

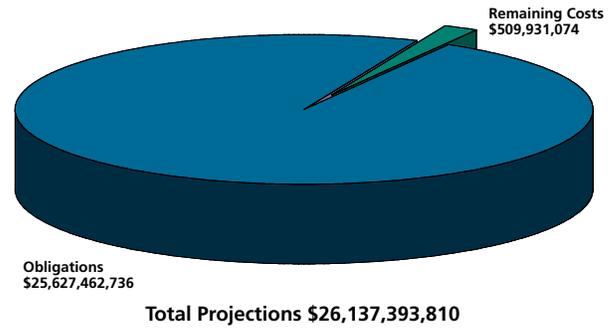
As the graph below indicates, considerably more than half the projected disaster costs are in Public Assistance. A large portion of these projected costs are the result of the aforementioned Northridge earthquake. Earthquakes generally require more costly infrastructure rebuilding, while hurricanes and floods affect greater numbers of people and require more Individual Assistance. As indicated in the graph, more than \$2 is projected to be spent for Public Assistance for every \$1 spent for Individual Assistance.

**Total FEMA Cost Projections for Disasters Declared in FY 91-00 by Program (as of 9/30/00)**



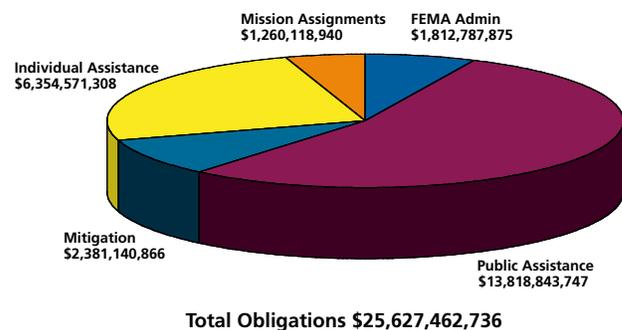
Approximately \$2.6 billion (10%) of the projected costs are to mitigate the effects of disasters and protect communities and the environment. Just under \$1.3 billion is for mission assignments to other federal agencies to provide assistance in the immediate aftermath of disasters, while a little less than \$1.9 billion (7%) is to administer direct disaster response and recovery activities.

**Total FEMA Obligations & Projected Remaining Cost for Disasters Declared in FY 91-00 (as of 9/30/00)**



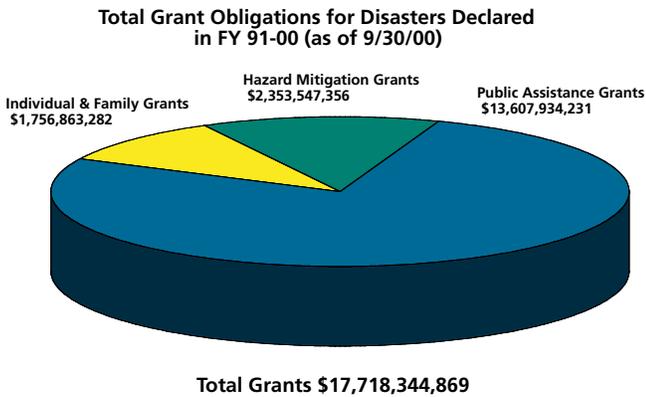
As the graph above shows, FEMA has obligated \$25.6 billion of the projected \$26.1 billion for all disasters for the ten-year period, or 98.1% of all projected costs. Disaster costs typically were incurred during a period of years following the disaster declaration because Public Assistance and Hazard Mitigation projects take many years to complete. FEMA has streamlined the Public Assistance process and accelerated final cost determinations at the state and local levels so that funds are obligated to specific projects. FEMA also established a two-year deadline for project approval and obligation of funds for post-disaster Hazard Mitigation grants. FEMA has made a priority of closing out, i.e., fully funding, all disasters declared prior to FY 1998, and as of the end of FY 2000 had reduced remaining costs to less than \$132 million for that group of disasters. By the end of FY 2000, FEMA had remaining costs of just under \$510 million for disasters declared during the period FY 1991-FY 2000.

**Total FEMA Obligations by Program for Disasters Declared in FY 91-00 (as of 9/30/00)**



The graph Total FEMA Obligations shows the total cumulative amount obligated for each program and activity for the 10-year period. Public Assistance, at 53.9% accounts for the majority of DRF funds obligated since FY 1991. Individual Assistance obligations

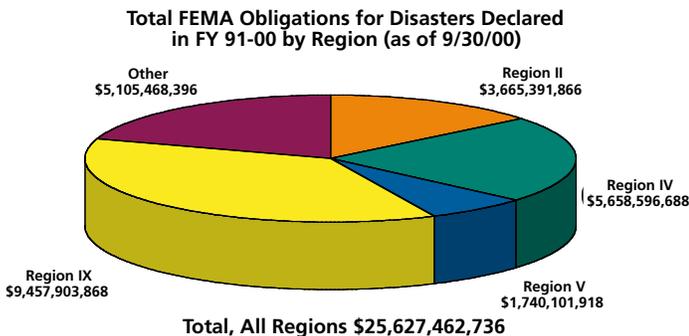
account for 24.8% of costs to date, while Mitigation programs are 9.3% of the total.



The graph Total Grant Obligations shows that of the \$17.7 billion in grants awarded for disasters, 76.1% of the dollars were for Public Assistance grants, 9.9% for Individual and Family Grants, and 13.3% for Hazard Mitigation grants. The percentages of funds distributed through Public Assistance grants underscores the emphasis placed during the last several years on reengineering the Public Assistance process and the need for continuous process improvement. This graph does not include other FEMA Individual Assistance provided either through direct payment to individuals for temporary housing or minimal home repairs or through other federal/state agencies for crisis counseling, unemployment, and legal services.

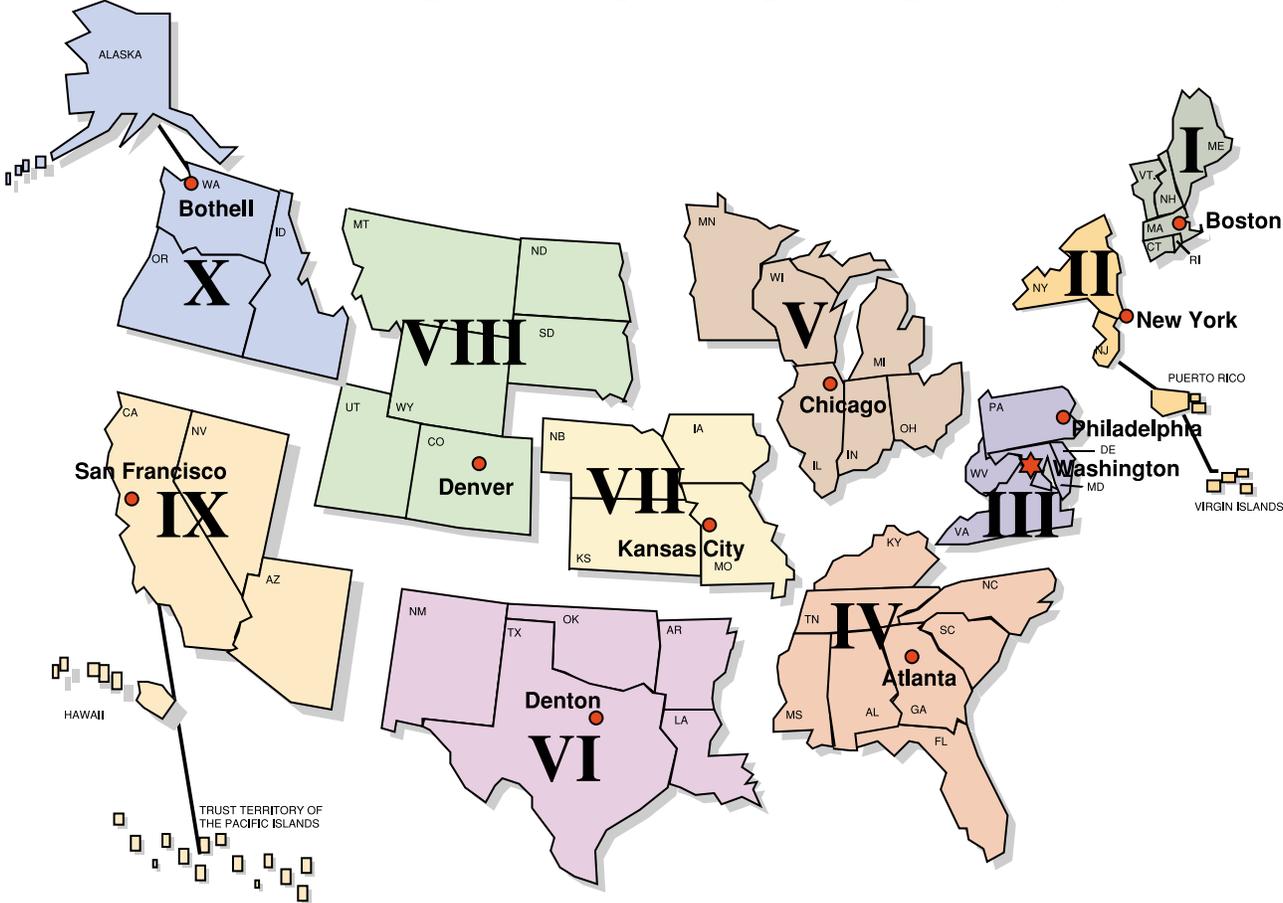
numerous wildfires. Region IV accounted for 22.1% of obligations primarily resulting from hurricanes, especially Hurricane Andrew. Region II obligated 14.3% of disaster dollars during the period, principally because of hurricanes in the Caribbean, while Region V accounted for 6.8% owing to severe flooding in the Midwest in 1993 and 1998. The balance, or 19.9% of the obligated dollars, was distributed in the other 6 regions of the country.

Disasters are costly both financially and emotionally. FEMA initiated many changes during the last seven years to reign in and control the costs of disasters and at the same time continue to provide better service for the people most in need—the disaster victims and devastated communities. We have documented the program and administrative improvements in the Management Discussion and Analysis, especially pre-disaster mitigation highlighted by the phenomenal growth of *Project Impact: Building Disaster Resistant Communities*.



Region IX accounted for 36.9% of all obligations for disasters declared since 1991. This was primarily the result of the Northridge earthquake, hurricanes in Hawaii and the Pacific Islands, flooding, and

# Federal Emergency Management Agency Regional Map



## CERRO GRANDE FIRE



On May 4, 2000, a prescribed burn on federal land at Bandelier

National Monument in New Mexico exceeded containment capabilities, was reclassified a wild land burn, and spread to other federal and non-federal land causing damages to private and public properties. The size and movement of the fire caused evacuations in and around Los Alamos and White Rock, New Mexico, including the Los Alamos National Laboratory, one of the leading national research laboratories in the United States and the birthplace of the atomic bomb.

On May 11, 2000, the President issued an emergency declaration that was followed on May 13, 2000, by a major disaster declaration.

The fire resulted in the loss of federal, state, local, tribal, and private property. The United States agreed to compensate the victims of the Cerro Grande Fire for all losses associated with the fire.

On July 13, 2000, Congress passed the Cerro Grande Fire Assistance Act (CGFAA). This Act charged FEMA with establishing the Office of Cerro Grande Fire Claims (OCGFC) to investigate, consider, ascertain, adjust, determine, grant, deny, or settle any claim for monetary damages. The Office of Cerro Grande Fire Claims is responsible for compensating victims of the Cerro Grande Prescribed Fire for injuries and damages resulting from the fire.

Between August 28 and September 30, 2000, the OCGFC Program received 1,716 Notices Of Losses (1,289 from individuals, 369 from businesses, 9 from state/county agencies, 1 from the Pueblos—non individual, 9 from non-profit organizations and 39 waiting classification) and made 112 payments totaling \$3,317,016. During this period 2,532 people visited the Customer Service Centers and more than 1,200



New Mexico fires destroyed many homes and thousands of acres of forest land during FY 2000.

calls were received for program information on the toll-free number.

FEMA received an appropriation of \$500 million. Of that, \$455 million is for claims and \$45 million, or 9%, is for administrative costs for the entire duration of the operation. An independent public accounting firm estimated claims liability of \$440 million based on the August 28, 2000, Interim Final Rules entitled, *Disaster Assistance: Cerro Grande Fire Assistance, Interim Final Rule*, published in the Federal Register Part V at 44 CFR Chapter 1, Part 295. Total administrative costs should remain between 9-10%.

FEMA's Director reiterated the importance of meeting the statutory date August 28, 2000, for program operations to begin in New Mexico.

The statutory date was met with the main administration office in Santa Fe and a total of seven satellite offices in the affected area, called Customer Service Centers (CSCs), opening and processing Notices of Loss from fire victims on August 28, 2000.

Our program goals correspond to the major components of this program—claims processing (policy, procedures and information management) and the resources (funds, facilities, personnel and equipment) required for the execution of all program activities.

The primary goal for claims processing is to try and provide fair compensation as quickly as possible to all victims of the fire. The Act created an objective for claims processing that will define success in meeting our first goal. This objective is for the OCGFC to make an initial decision on all Notices of Loss submitted by victims of the fire within 180 days. A strategy to help us achieve this goal and to expedite the claims process, until final program regulations are published, is to quickly publish an interim policy manual that will contain claims processing

guidelines. Additionally, we will solicit comments from community leaders and victims on all interim policy decisions to help minimize misconceptions and assist in the quality of our interim decisions. Finally, there will be a team of qualified authorizing officials to speed up the initial decision on payments.

A second goal is to keep the elected officials and the community informed with current and accurate information. To help victims in filing a claim and getting current program information in circulation, the following aids were established:

1. FEMA Web site—  
[www.fema.gov/cerrogrande](http://www.fema.gov/cerrogrande).
2. A toll-free information line.
3. A local post box in Los Alamos.
4. A community liaison person that maintains daily contact with community organizations.
5. A congressional liaison to work with all the applicable congressional offices, state, and elected officials.
6. An OCGFC bulletin, published periodically, that announces key policy and procedures decisions.
7. A tribal liaison team to help the two affected Pueblos through the entire process.
8. Periodic news releases and constant liaison with applicable newspapers and TV/radio stations.
9. Director's visits to the community and community comments solicited on all major policy decisions.

Our third goal is to determine an estimated OCGFC total program cost during the first quarter of FY 2001. This can be accomplished by estimating the total amount of claims and projecting the administrative costs per year for the expected duration of this program.



Cerro Grande workers provide information and answer questions from prospective claimants.

**"We're trying to minimize misconceptions. Our goal is to try to get fair compensation as quickly as possible."  
Director, OCGFC**



Firefighters worked to extinguish wildfires in New Mexico.



signifies its commitment to provide support to the fullest extent that it can. This is accomplished by response and recovery actions to:

- Collect and provide information to the President in determining the need for a disaster declaration;
- Conduct emergency operations to save lives and property by timely positioning of appropriate emergency equipment, supplies, and personnel;
- Provide accurate, timely public information;
- Gather, analyze, and use data for the determination of applicant eligibility;
- Provide for the immediate essential needs and basic long-term recovery of individuals and public institutions in collaboration with FEMA partners;
- Manage loan and grant application, approval, and disbursement;
- Assist in the restoration of communities so that individuals, businesses, and governments can function on their own;
- Provide efficient and effective service;
- Manage response and recovery operations to assure compliance with laws and regulations; and,
- Provide technical assistance to states.

During FY 2000, the President declared 40 major disasters that represent a projected cost of \$670 million. Thus far a total of \$507 million was obligated in FY 2000 for these 40 major disasters for response and recovery efforts. The major disaster declaration map shows the distribution of disasters nationwide.

## DISASTER ASSISTANCE

### INDIVIDUAL ASSISTANCE

After the initial disaster response, FEMA's Individual Assistance (IA) program provides minimal repair for homes that can quickly be restored to a habitable condition, rental assistance for owners and renters whose primary residences are rendered uninhabitable as a result of a disaster, and mortgage and rental assistance for those who have received a written notice of foreclosure or eviction as a result of disaster related financial hardship.



FEMA disaster workers help provide aid to disaster victims.

FEMA also coordinates an array of assistance services for individual disaster victims through other federal agencies. This includes disaster loans from the Small Business Administration, tax assistance through the Internal Revenue Service, disaster unemployment assistance through the Department of Labor, veteran's benefits through the Veterans Administration, social security benefits from the Social Security Administration, food stamps through the Department of Agriculture, insurance assistance through the State Insurance Commissioner, legal services

through the American Bar Association, and consumer protection and crisis counseling through state and local entities. FEMA serves as a clearinghouse and information dissemination contact point for these services for disaster victims. The vehicle for providing individual assistance is the application process and associated services provided by FEMA.

FEMA's continuing goal is to provide individual disaster victims with prompt, caring service which helps them to understand what assistance is available to them, and the process by which to apply for it. FEMA is committed to ensuring that eligible individuals have safe, habitable housing as soon as possible after the disaster, through either repair of their own homes or provision of temporary quarters. FEMA also guides victims to the network of assistance available through other federal, state, local, and voluntary agencies.

**Program General Purpose:** *Provide prompt individual assistance through an application process which offers clear, accurate information and caring personal support to disaster victims.*

**Program Emphasis:** *To improve Individual Assistance program delivery over FY 1995 baselines.*

The performance results for the Individual Assistance performance standards discussed below are based on survey results for recipients of disaster assistance in all disasters declared for Individual Assistance in FY 1999, the most recent fiscal year for which complete results are available.

The margin of error for each of the fiscal years is shown below.

| Fiscal Year | Margin of Error | No. of Responders |
|-------------|-----------------|-------------------|
| FY95        | ±2%             | 3,859             |
| FY96        | ±1%             | 8,641             |
| FY97        | ±1%             | 6,717             |
| FY98        | ±1%             | 6,671             |
| FY99        | ±1%             | 5,134             |

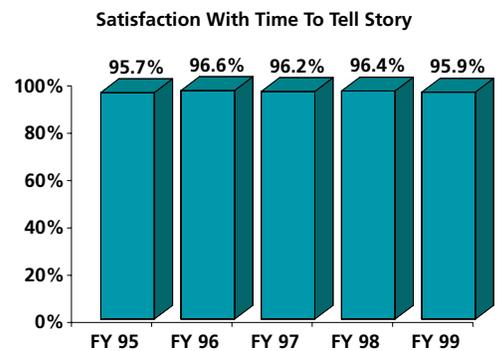
calls are likely to be less satisfied with this dimension of service. FEMA has taken steps over the years to increase the number of lines and operators available to take teleregistrations. In addition, FEMA has greatly improved training to assure that questions will be answered correctly by the person who first takes the call. FEMA also sped up the processing of applications by using document imaging to create an electronic image of any letter or other document an applicant sends us that is placed in the applicant's electronic file.

In FY 1999, FEMA continued to maintain high levels of satisfaction among recipients of Individual Assistance. In all cases, **satisfaction** levels for Individual Assistance were at or above levels set in the baseline year, FY 1995. The standard "provide eligible applicants with disaster housing assistance as promptly as possible, and give them an estimate of when assistance will be received" showed the most notable increase, increasing 1.6 percentage points over FY 1998 and 2.9 points over the baseline year. Change in the remaining standards was within the statistical margin of error of (± 1%), and therefore of little statistical significance.



FEMA works to provide shelter during the initial stages of a disaster.

*To provide disaster victims with an opportunity to tell their stories to responsive FEMA representatives.*

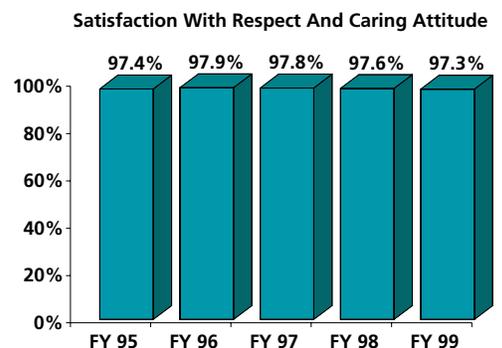


This standard addresses the need of disaster victims to tell their stories

to responsive individuals who understand the range of feelings they are experiencing. Both Teleregistration and Helpline contacts provide opportunities for victims to describe their situations and clarify options for assistance. FEMA teleregistrars and helpline operators are trained to be aware of and sensitive to the range of emotions of disaster victims and to be supportive when providing and describing available assistance.

*To treat applicants with respect and caring.*

This standard addresses how we as service providers interact with and treat our customers. Our customers contact us at a time of vulnerability. It is very

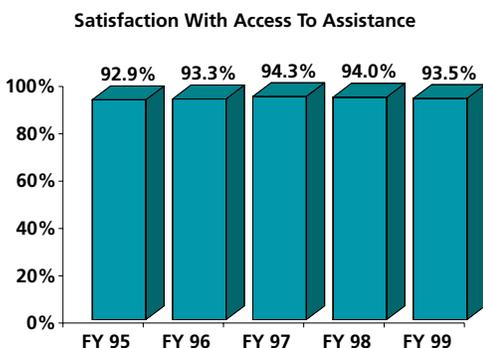


**Program Performance:** The Individual Assistance performance information is organized according to customer service standards, as follows:

*To provide applicants access to disaster assistance.*

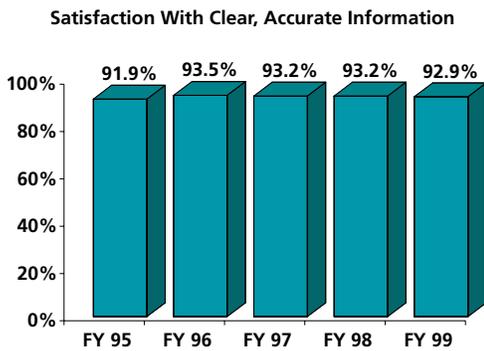
Disaster victims are often traumatized. Many find their homes destroyed or severely damaged. Property accumulated through years of hard work is lost. A lifetime of memories can be obliterated. This standard addresses the issue of ease of applying

for disaster assistance in a time of trouble and turmoil. Customers who have to wait for completion of their registration phone



important that we treat them with care and consideration in a warm, helpful, and respectful manner. FEMA staff are trained to attend to customer needs with respect and caring regardless of circumstances and service demand.

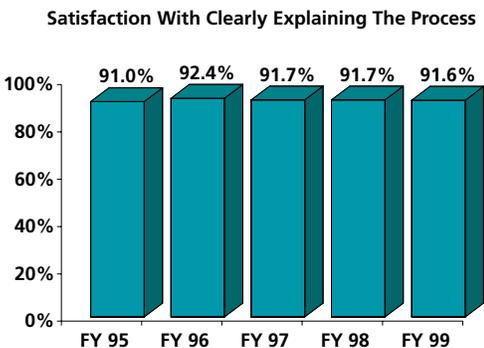
*To provide clear, accurate information about available assistance and how to apply for it.*



This standard addresses the need for clarity and accuracy of information on how victims can apply for assistance provided by both FEMA

and other federal agencies. We are mindful of the fact that many applicants are bewildered by the events surrounding the disaster and have little experience dealing directly with government agencies. Clear accurate information minimizes the applicants' burden and helps to reduce the stress and frustration level. It is critical that applicants understand not only the scope of possible assistance, but also the criteria for eligibility and interrelationships among assistance programs. The single most influential cause of customer dissatisfaction is inflated, unmet expectations.

*To explain clearly what eligible applicants need to do after registration, what they can expect from government agencies, and how long the process should take.*



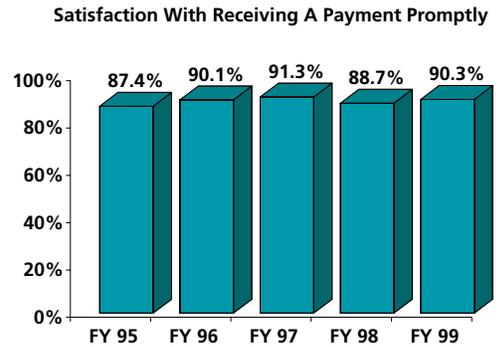
This standard is designed to ensure that applicants are aware of any follow-up steps they may need to take after an application

is completed, and understand exactly what to expect in the way of assistance and timelines. FEMA has taken steps to simplify and clarify the complex

assistance process by combining the Temporary Housing and the Individual and Family Grant Programs thus requiring only one application.

*To provide eligible applicants with disaster housing assistance as promptly as possible, and give them an estimate of when assistance will be received.*

This standard focuses on the need for fast and timely processing of applications so that those who need housing assistance receive it as soon as possible.

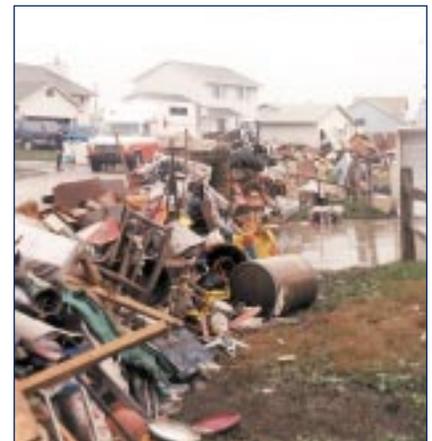


We realize that the provision of accurate estimates and prompt assistance allows disaster victims to take comfort in a sense of orderliness in rebuilding their lives. Customer responses indicate there was a 1.6% increase in satisfaction with performance for this standard in FY 1999 over FY 1998.

## PUBLIC ASSISTANCE

FEMA's Public Assistance Program provides supplementary aid to state and local governments, and certain private nonprofit organizations to help communities recover from the devastating effects of major disasters and emergencies.

State and local governments, and certain private nonprofit organizations may be eligible for public assistance funding to clear debris; to implement emergency protective measures for the preservation of life and property; to repair or replace public infrastructure, such as streets, bridges, water control facilities; to repair or replace public buildings and related equipment; to repair or restore public utilities; and to repair or restore public recreational facilities and parks.



Disasters can produce tons of debris.

These Public Assistance projects are an extension of FEMA's mission to address the loss of life, human suffering, loss of income, and damage or destruction of property that occur during disasters and emergencies, by supporting community efforts to restore critical lifelines necessary for the reestablishment of normal daily activities and commercial relations after such events.



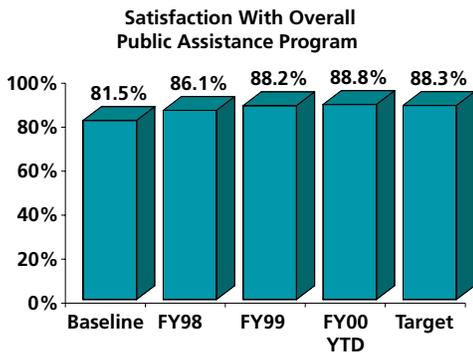
Public Assistance helps rebuild damaged roads, like the one above.

**Program General Purpose:** *To transform Public Assistance into a customer driven and performance based program, thereby improving the quality and delivery of service to our state and local applicants.*

**Program Emphasis:** *To assist communities in recovering from disaster and improve Public Assistance Program delivery over FY 1997 baselines.*

**Program Performance:** The Public Assistance performance information is organized according to customer service standards, as follows:

*Customers will be satisfied with the overall Public Assistance Program and process.*



On October 1, 1998, FEMA implemented a redesign of the Public Assistance Program. Before the redesign, FEMA was not fully cognizant of

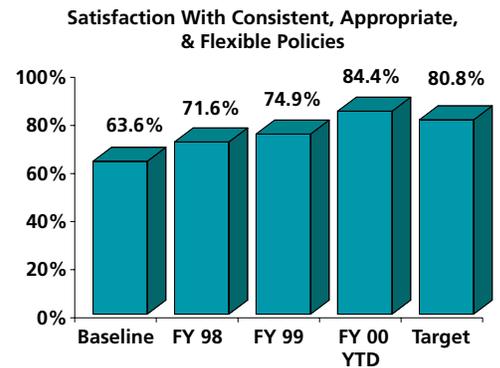
how our policies, programs, and procedures affected our public assistance customers—state and local governments. However, during the developmental aspects of the redesign we received valuable insights from our state and local customers/partners which led us to fundamentally shift the direction of the program. The measure of success for the Public Assistance Program now focuses on the applicants' satisfaction with the redesigned program and its processes.

We surveyed 27 individual disasters in FY 2000. The results for this performance standard indicate a high

level of customer satisfaction with the overall operation of the Public Assistance Program. Whereas last year we effectively met the target (within 0.1 percentage points), this year we exceeded the target by 0.5 percentage points. We hope to maintain this high level of satisfaction in the upcoming year and will continue to work on improving the program so that we may deliver the best quality of assistance to our applicants and increase their overall satisfaction with the Public Assistance Program.

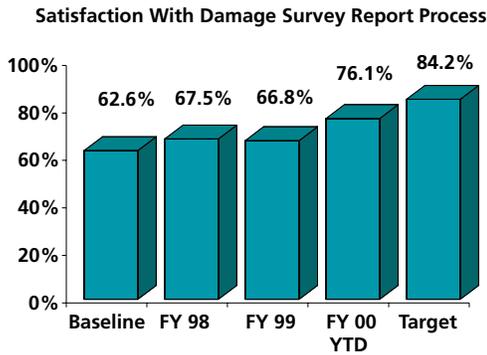
*Customers will be issued policy that is consistent, appropriate, and flexible.*

In the past, FEMA has been criticized for policies that lacked flexibility, as applied to different types of disasters, and for policy misinterpretation in the field during disaster recovery activities. Confusion abounded in these situations. Beginning with the redesign, FEMA undertook a new policy initiative to ensure that, in future disasters, policies will be flexible enough to accommodate all types of disasters and that these policies will be applied consistently. This standard helps us to measure our success in streamlining and clarifying FEMA policy for the handling of Public Assistance to better serve our applicants' needs.



The results for FY 2000 exceed the target for this performance standard by 3.6 percentage points. Customer satisfaction with this standard shows a marked increase of 9.5 percentage points over the rates recorded in FY 1999, but perhaps more notable, the FY 2000 results show an increase of 20.8 percentage points over the baseline survey conducted in FY 1997. While streamlining is a long and ever evolving process, we believe these results indicate we are moving in the right direction for both the program and our customers.

*Customers will be satisfied with the overall Project Worksheet (PW) process.*



Offentimes, changes occurred during the Damage Survey Report (DSR) process that reduced the amount eligible for repair.

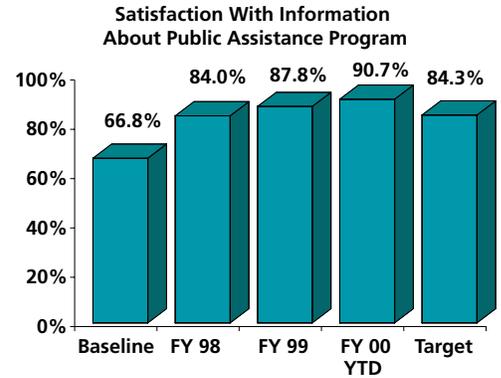
Applicants were made aware of this reduction only upon final notification of their DSR(s). This led to applicant dissatisfaction with the DSR process, and with the operation of the Public Assistance Program itself. This standard charts the progress, or lack thereof, made in the redesigned Public Assistance Program to establish close communication, coordination, and cooperation during the application process. The DSR process has been replaced with the Project Worksheet (PW) process which, under the redesigned Public Assistance Program, keeps applicants informed at all stages and junctures of the application process.

Unlike the FY 1999 survey results in which customer satisfaction decreased by approximately one percentage point, the FY 2000 results for this performance standard show a dramatic improvement with our customers' satisfaction. While the performance standard average still falls below the established target, the FY 2000 results have increased 9.3 percentage points over FY 1999 results, and 13.5 percentage points over the Baseline Survey. We feel we can attribute much of this increase in satisfaction to new elements of the PW process—expedited immediate needs funding, small project validation, and use of the case management system. In the upcoming year, we will be utilizing the survey as a tool to assist us in examining and possibly restructuring other areas of the PW process so that we may improve the effectiveness and efficiency of the program while continuing to increase our customers' satisfaction. In the meantime, we will continue to closely monitor our customers' reaction to the PW process.

*Customers will be satisfied with the information received about the Public Assistance Program.*

During the redesign process, we learned that our applicants did not feel FEMA had always devoted

adequate resources to ensure applicants' understanding of funding processes, policies, and procedures governing the Public Assistance

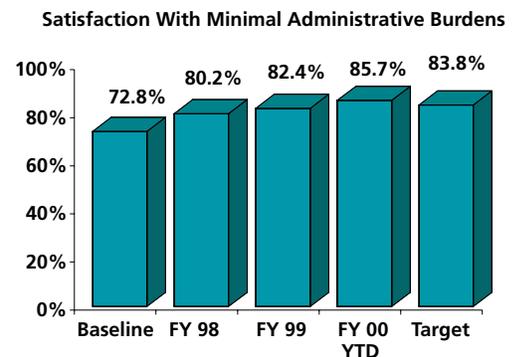


Program. With the redesigned program, we are now strongly committed to providing better policy and guidance and an experienced and knowledgeable staff to further facilitate comprehensive and complete information dissemination to our applicants. This standard is the stimulus for FEMA to continue to improve in this regard.

This performance standard recorded the highest level of satisfaction in FY 2000, exceeding its target by 6.4 percentage points. Since the redesign we have striven to provide sufficient, accurate, user-friendly information regarding the Public Assistance Program. To that end, we have continued with the publication and distribution of policies and guidance materials to the public. We also have concentrated much time and energy toward our training and accreditation initiative. One of the key components to successful information dissemination is having a knowledgeable well-trained staff working with applicants and available to answer their questions. According to the FY 2000 results, we have met with success in this program area. We hope to maintain this high level of customer satisfaction over the next several years and will do our best whenever possible to increase our applicants' satisfaction.

*Customers will have minimal administrative burdens.*

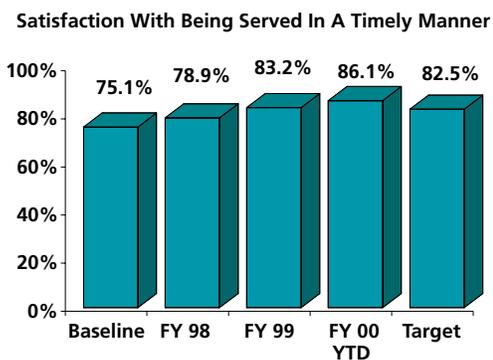
Prior to the redesign, many applicants contended that FEMA asked for too much documentation during the DSR process and that the



Agency had created an overly difficult and bureaucratic process out of simple information gathering. For the past two years, FEMA has been working on streamlining the administrative processes required of applicants to eliminate any duplicative, redundant, and unnecessary information to assess applicant needs and requirements expeditiously.

Results for FY 2000 show that FEMA has had continued success in its effort to reduce the administrative burden of our applicants, exceeding the target by 1.9 percentage points. To maintain this level of satisfaction, and in an effort to improve upon it in FY 2001, we will continue to examine new ways to keep the administrative processes and requirements of the program to a minimum.

*Customers will be served in a timely manner.*



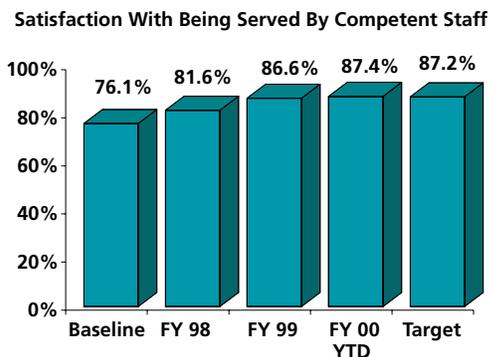
A large part of providing customer service to our applicants is in processing funding quickly so that projects are not delayed.

Keeping this in mind, FEMA is committed to expediting funding to our applicants as quickly as possible without compromising the quality or integrity of the review process. Speedy distribution of assistance permits the state and local governmental organizations and entities to rebuild infrastructure so that the community can return to normal as soon as is practical. It also enables FEMA to close disasters faster. This standard addresses the timeliness of FEMA's PW and funding processes.

According to results for FY 2000, our customers were highly satisfied with FEMA's timeliness. Satisfaction rates for this performance standard exceed the target by 3.6 percentage points. With the implementation of the redesigned program, the application process has been expedited and the timeliness in the release of disaster assistance funding has improved. We believe these improvements have contributed to the increased satisfaction with this particular area of the program. We will continue to work to maintain this high level of satisfaction and to expedite the application and PW processes.

*Customers will be served with minimal turnover by staff who are responsive, competent, accountable, and customer friendly.*

This standard represents one of the major initiatives undertaken in the redesigned Public Assistance Program.

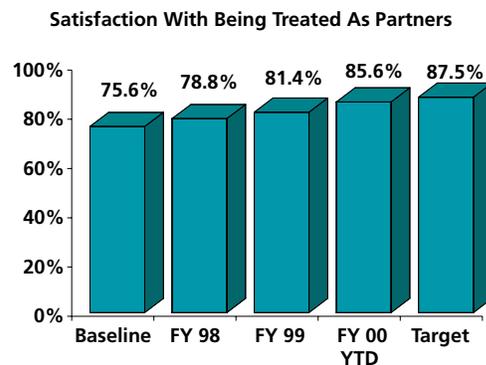


Policy interpretation, information dissemination, and the PW process are all impacted by the quality of staff implementing the Public Assistance Program. Since customer satisfaction is largely based on the people implementing the program, many of the components in the redesign were centered around a FEMA staff that would be responsive to customer needs, knowledgeable about general operations, responsible and accountable for quality of work, and able to conduct business in a pleasant, respectful, and professional manner.

In FY 2000, we continued to improve overall applicant relations with FEMA during the disaster recovery process. We attribute this success to our training and accreditation initiative which has been implemented nationwide. This initiative is a means of ensuring that our customers will be served by a competent, experienced, and responsive staff throughout all stages of the application and recovery process. A part of an overall Agency initiative, we feel this increased level of training and experience requirements has increased our applicants' satisfaction and the overall operation of the program.

*Customers will be treated as partners.*

As well as being our customers, state governments also are FEMA's partners in the disaster recovery process. Frequently however,



during recovery activities, FEMA has not recognized the full importance of the state's role and its participation in the overall process. Under the redesigned program, this has changed. In addition to considering states as full and equal partners in disaster recovery, FEMA has broadened state responsibilities, enabling states to administer the Public Assistance Program for the federal government, in conjunction with FEMA. This standard was developed to acknowledge states nationwide as being both FEMA's customers and our partners, and to ensure they remain as such in theory and in practice.

Survey results show continued movement toward our target satisfaction rate in FY 2000. Satisfaction rates increased 4.2 percentage points over FY 1999 and 10 percentage points over the baseline survey for this performance standard. As the roles of the state and federal government have been more clearly defined and responsibilities have been assumed under the redesigned program, the inter-working relationship between these two entities has seen improvement, further facilitating the disaster assistance recovery process.

## **CONCLUSION**

The resources assigned to FEMA's response and recovery efforts help to rebuild lives and communities and cement the compact between citizens and their government. FEMA's disaster assistance customers tell us that over the five-year period of surveying we consistently are providing high quality service in a time of need. FEMA's new Public Assistance Program continues to evolve and mature and increasingly is meeting the needs of our state and local partners. These constituents identified what is of importance to them and how they view FEMA's performance against these factors. In several instances expectations have been surpassed and standards will be revised in FY 2001.

## MITIGATION DIRECTORATE

**M**itigation actions protect life and property and reduce long-term risks from hazards. Typical federal mitigation actions involve supporting local government officials' efforts to promote the construction or siting of structures so that they have reduced chances of being impacted by disasters; develop, adopt, and enforce appropriate building codes and land use planning standards; and take action to correct inappropriate building designs.

Mitigation is achieved primarily through community actions, which are greatly enhanced by the support of individuals, public-private partnerships, and federal and state assistance. FEMA's strategy for mitigation focuses on making it as easy as possible for communities and their citizens to take informed and effective mitigation actions. FEMA will do this by leading a national effort to:

- Identify and improve the understanding of the nation's hazards and their risks, by community;
- Develop or improve techniques that mitigate those risks;
- Provide an environment conducive to applying those techniques;
- Provide financial and technical assistance, both pre- and post-disaster, to facilitate application of those techniques; and
- Support the development of incentives and disincentives which make application of those techniques a social, political and/or economic priority.

### MITIGATION STRATEGY

FEMA's mitigation strategy focuses on partnerships in the development



These utility boxes are raised as a mitigation effort to prevent future damage.

of disaster-resistant communities and institutions in four areas:

1. *Federal Mitigation.* FEMA leads an effort to ensure that federal authorities and resources that affect the built environment, undeveloped land, waterways etc. also support, to the greatest feasible extent, community-based mitigation.
2. *State Mitigation.* FEMA collaborates with the states to develop criteria and incentives for comprehensive state initiatives that marshal their resources and authorities to support community-based mitigation.
3. *Community Mitigation.* FEMA collaborates with community-level stakeholders to reduce risk through voluntary, community-based, incentive-driven decisions and action.
4. *Private/Public Mitigation.* FEMA leads an effort to identify and leverage the national mitigation effort that results from mitigation-appropriate construction and land-use decisions made by business and to encourage the availability of incentives for mitigation through insurance and financial market instruments.



In the aftermath of disasters FEMA state workers demonstrate how to rebuild disaster resistant homes.

Through technical assistance and networking opportunities, FEMA supports partners who strive to enhance disaster resistance within communities and institutions by taking sustained actions to reduce or eliminate long-term risk to people and property from hazards and their effects.

Through use of mitigation resources FEMA identifies, assesses, and reduces the nature and extent of risk for hazards such as floods, earthquakes, hurricanes, and dam failures. Of the total budget of almost \$123

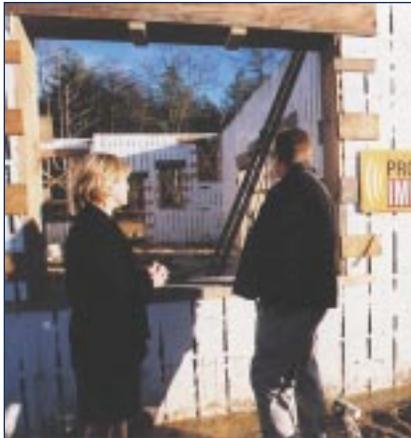
million for mitigation, \$73 million is charged directly to the National Flood Insurance Fund to support floodplain management activities. An additional \$20 million is used to support *Project Impact* communities, the centerpiece of the community based mitigation effort.

**PROJECT IMPACT:  
BUILDING A DISASTER  
RESISTANT COMMUNITY**

**Program General Purpose:** *Help communities protect themselves from the devastating effects of natural disasters by taking preventative actions that dramatically reduce disruption and loss.*

Since 1990, FEMA has spent \$27 billion from the Disaster Relief Fund to help people repair and rebuild their communities after natural disasters. That is not the total cost. Insurance companies spent additional billions in claims payments; businesses lost revenues; employees lost jobs; other government agencies spent millions more. Worst of all is the loss that can never be recovered: human life. With *Project Impact* serving as the centerpiece of FEMA's community-based mitigation effort, FEMA is changing the way America deals with disasters.

A nationwide initiative, *Project Impact* operates on a common-sense, damage-reduction approach, basing its work and planning on three simple principles: preventive actions must be decided at the local level; private sector participation is vital; and long-term efforts and investments in prevention measures are essential. FEMA is using all the available mechanisms to get the latest technology and mitigation practices into the hands of local communities. The incentive is clear: a disaster resistant community is able to bounce back from a natural disaster with far less loss of property and consequently much less cost of repairs. This past year, increases of community involvement in the areas of peer mentoring, partnering, public outreach, technical assistance, training, media/public awareness, mitigation activities, and risk assessment are setting the stage for building long-term commitment and



New construction adopts *Project Impact* bracing concepts to prevent future loss.

permanent change towards disaster prevention. Indeed, FEMA estimates that for every dollar spent in damage prevention, **two** are saved in repairs.

FEMA established two goals for *Project Impact* for FY 2000. To increase the overall FY 2000 *Project Impact* communities by at least 50 beyond the 117 identified in FY 1999, and to build disaster resistance in each of these communities.

FEMA recognizes that federal resources must be leveraged with those of the private sector, as well as state and local resources, to build

disaster resistant communities. FEMA realized from the outset that public/private national and local partnerships, as well as intergovernmental partnerships, were the only sensible approach to building disaster resistant communities.

**Program Emphasis:** *Increase the overall FY 2000 Project Impact communities by at least 50 beyond the 117 identified in FY 1999.*

**Program Performance:** Sixty-eight additional jurisdictions signed agreements to become *Project Impact* disaster resistant communities in FY 2000 increasing the total number to 185 communities.

**Program Emphasis:** *Build disaster resistance in each of these communities.*

**Program Performance:** FEMA sought to build disaster resistance by increasing guidance, training, and technical assistance for *Project Impact* communities. More than a 100 individuals from *Project Impact* communities and their state governments attended *Project Impact* building consensus courses designed

to equip *Project Impact* communities with tools and technical guidance. More than 1,200 individuals from local, state, and federal organizations and businesses attended the *Project Impact* Summit that featured workshops and peer focus groups as well as community representatives presenting successful concepts and principles and practices from their communities. Sixty *Project Impact* communities were provided free contingency planning software donated by Strohl's Systems. This



*Project Impact* principles at work. Hurricane straps and other roof reinforcements can reduce damage from high winds and hurricanes.



# Project Impact Building Disaster Resistance



software can be used by local government to assess the vulnerability of the community's public facilities.

The Disaster Research Center of the University of Delaware reported that the original seven *Project Impact* pilot communities realized a 15% increase in the types of mitigation actions that had been adopted across all seven communities above the baseline established in year one. The University of Delaware report also noted that the number of active partners participating in these pilot communities increased by approximately 48%. The University of Delaware



Elevating homes can help prevent damage from floods.

report suggests that building disaster resistance requires a period of time for community building and the translation of plans into action. The future looks bright for the other *Project Impact* communities reporting similar results.

**Program Performance:** National business partners are instrumental in communicating and focusing attention on *Project Impact* and in building disaster resistance in these communities. FEMA continues to work with national partners whose logos are displayed in the collage below.



FEMA's national business partners are important, valued contributors to the success of *Project Impact*. They are the most active generous contributors of time and money to support initiatives to promote *Project Impact*. National business partners promote prevention and community education and awareness through conferences, seminars, and workshops and other programs to disseminate information to make communities disaster resistant and to encourage states and communities to adopt and enforce building codes. These national business partners also share their own mitigation experience and expertise with governments and communities.

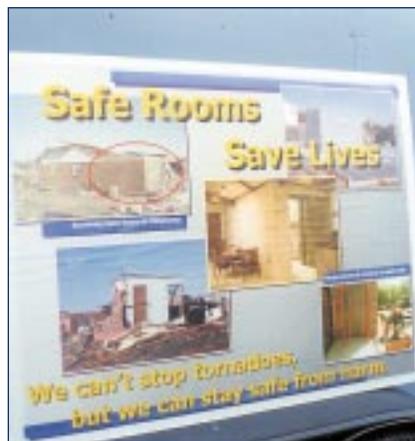
**Program Performance:** Recruiting local businesses to be *Project Impact* partners is vital to success in building disaster resistance in communities. *Project Impact's* local business partners represent the segments of the business community that we would expect to be interested in building disaster resistant communities. Many non-profit organizations and associations are active supporters of the initiative such as local Chambers of Commerce, remodelers, builders, and real estate associations representing many business interests within the community. Insurance and financial services are

actively involved as partners, given their direct participation in financial aspects of protection of the community and individual's assets.

Home repair and construction industries provide expertise and experience in dealing with the affects and aftermath of disasters but also can provide expertise in fortifying structures to withstand the affects of disasters before they happen. Engineering and technical consulting companies provide a unique expertise that is usually called upon after disaster strikes but can be even more valuable if used in a preventive sense. Public utilities are the community's lifeline and their participation can add immeasurably

to educating the public in how to protect themselves and their property. Media partners are instrumental in public information and education. Health care organizations minister to those who are injured or suffer illness as a result of the disaster. Collectively, the multiplicity of business partners can strengthen a community's resistance and lessen the impact of disasters.

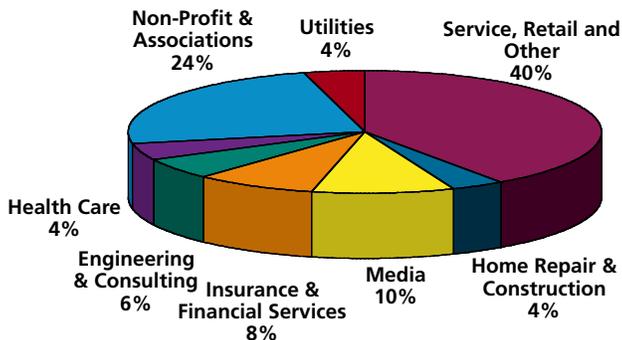
FEMA has recruited close to 2,600 businesses at the national and local levels to be partners in building disaster resistant communities by the end of FY 2000.



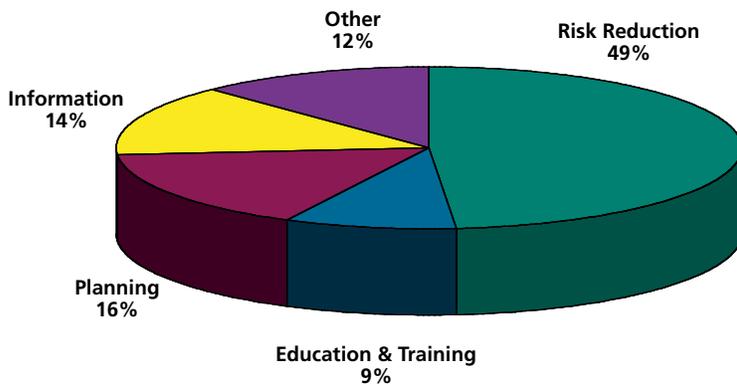
FEMA's safe room project has helped people in tornado-prone areas to build rooms that can save lives.

## LOCAL BUSINESS PARTNERS

**Project Impact Local Business Partners**

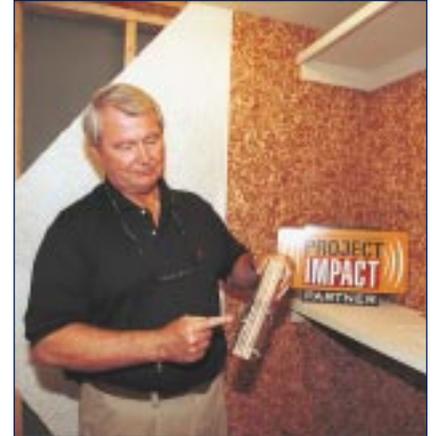


**Project Impact Projects**



*Project Impact* projects supported by local communities can be organized in four project types, information, education and training, planning, and specific risk reduction measures. In the initial implementation stages, there is a great need to provide information to the public and private sector business partners about mitigation and prevention activities and the benefits of these activities to the community. This is a consciousness raising stage that is necessary to change the current mindset and establish support (both in terms of authority and resources) for mitigation and prevention. It should be recognized that the private sector is not usually involved with local jurisdictions in establishing or running governmental programs, hence the need for information, education and training, to establish a partnership for comprehensive community planning.

This emphasis on public communication also is necessary in order to develop widespread community understanding of the principles of *Project Impact*, to explain the concept of mitigation to a public that is more familiar with disaster preparedness, to recruit partners for the communities' activities, and to promote participation in local mitigation programs. In fact, public communication is necessary on a continuous basis to sustain the momentum of the initiative.



*Project Impact* partner demonstrates building techniques to help protect against disaster damage.

Education and training is a key component for fostering individual mitigation actions. It also is a good way to involve private sector organizations. As a consequence, the private sector and non-profit organizations typically participate in the development of, and provision of resources for educational videos, information pamphlets, materials on how to retrofit residential structures, display booths at fairs, and additional disaster-related training for their employees.

Steering and Planning Committees need to be formed to put programs in place and to maintain early enthusiasm. Planning is required to identify actions of the greatest benefit to the community that should be taken, as well as to develop long-term community-wide mitigation plans and to outline new building code and land use regulations that will reduce future disaster impacts and losses.

The result of the aforementioned efforts is specific risk reduction projects that retrofit many public buildings and residences in the affected communities and to shore up public infrastructure to withstand the ravages of disasters.

## REPETITIVE LOSS INITIATIVE

**Program General Purpose:** *To reduce the disaster relief expenditures to communities that are mired in a damage-repair; damage-repair cycle, a critical goal of FEMA is to reduce the flood insurance subsidy to the owners of structures that have experienced repetitive flood losses.*

Repetitive loss structures are estimated to be about 45,000 buildings that have had 2 or more losses under the National Flood Insurance Program (NFIP) in any 10-year period, and that are currently insured by the NFIP. FEMA will target for mitigation approximately 11,000 of these repetitive loss structures that have had 4 or more losses, or 2 or 3 losses which cumulatively exceed building value, and which offer the greatest cost-benefit, by acquiring, relocating, elevating, or flood-proofing those structures.



Sometimes elevating homes is not enough.

Because repetitive loss structures have the most severe risk of flooding, mitigation for them is highly cost-effective. These 11,000 buildings are responsible for almost \$80 million of the \$200 million in NFIP claims estimated to be paid annually for repetitive loss buildings. Since these buildings were generally built prior to the inception of the NFIP, the policyholders pay premiums that, by law, are substantially less than full risk premiums.

FEMA's strategy to reduce repetitive losses also includes encouraging the active participation of state and local elected officials and floodplain managers and encourages them to take some responsibility to cut repetitive losses.

FEMA has directed states to first use their Flood Mitigation Assistance Program (FMAP) funding to mitigate damages to repetitive loss buildings. FEMA also has been encouraging states to use Hazard Mitigation Grant Program (HMGP) funds to mitigate these damages. However, HMGP funding priorities are established by the state that may have competing priorities for use of this funding. Data on repetitive loss buildings has been provided to State Hazard Mitigation Officers and other state and local agencies so they can identify these and determine risk to these properties and include them in their mitigation plans and projects.

**Program Emphasis:** *Complete the development of the multi-year repetitive loss strategy for the National Flood Insurance Program and begin implementation of the strategy using existing program authorities.*

**Program Performance:** The repetitive loss strategy was completed and implementation has begun.

- The addresses and claims history of the repetitive loss buildings have been provided to state floodplain and emergency managers for their use in mitigation planning so they can locate the properties and verify the status of the property.
- State emergency management agencies have been encouraged to direct HMGP funding toward mitigating losses to target buildings.
- States have been directed to spend Flood Mitigation Assistance Program funding first on mitigation projects for target buildings and then on other cost effective buildings.

- Target buildings have been ranked, based on the number and severity of losses, and that information has been made available to states.
- A Special Direct Facility (SDF) has been established to manage flood insurance policies and claims for the target buildings. The policies are in the process of being transferred over to the SDF. This process will be completed in FY 2001. This will allow FEMA greater control in providing insurance, adjusting losses, and gathering risk information. Each property in the SDF will be inspected and elevation data obtained.

Although progress can be made in reducing repetitive losses by redirecting existing programs, current funding levels are not adequate to mitigate the target buildings in the four-year period envisioned by the strategy. Efforts have been made and are underway to seek additional sources of funding.

**Program Emphasis:** *Develop a ranking system for the target repetitive loss properties to identify the highest risk structures.*

**Program Performance:** The 11,000 target repetitive loss properties have been ranked through a ranking system developed in cooperation between the Mitigation Directorate and the Federal Insurance Administration. The ranking is now on the FEMA Intranet and is being updated monthly. FEMA regions are providing the data to the states so they can begin to focus existing mitigation program funds to acquire, relocate, or elevate the structures. The ranking is based on the projected average annual damages as a percent of building value. Additional data will be gathered on the target repetitive loss properties and the ranking will be refined as this data is compiled.

### States With The Most Target Repetitive Loss Properties

|                | Number | Percent |
|----------------|--------|---------|
| Louisiana      | 2,993  | 29%     |
| Texas          | 1,237  | 12%     |
| New Jersey     | 1,061  | 10%     |
| North Carolina | 650    | 6%      |
| Florida        | 602    | 6%      |
| New York       | 537    | 5%      |

### HAZARD MITIGATION GRANT PROGRAM

**Program General Purpose:** *To reduce disaster assistance costs through hazard mitigation.*

To reduce disaster assistance costs, one of FEMA's primary approaches is to emphasize hazard mitigation through various incentives. Mitigation consists of taking measures to prevent future losses or to reduce the losses that might otherwise occur from disasters. Authorized by Section 404 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act, the Hazard Mitigation Grant Program (HMGP) provides grants to states and local governments to implement long-term hazard mitigation measures after a major disaster declaration. The purpose of the program is to reduce the loss of life and property due to natural disasters and to enable mitigation measures to be implemented during the immediate recovery from a disaster. FEMA can fund up to 75% of the eligible costs of each project. Eligible applicants are state and local governments, native american tribes, and certain non-profit organizations. The state or local government pays the remaining portion of the costs.

In the past, the process has taken considerable time, sometimes several years from the date of disaster declaration to approval and completion of projects. The process is complex, involving determination of scope of work, environmental review, and cost effectiveness determination. Both the Congress and FEMA recently agreed that the program needed to be streamlined and funding needed to be expedited to complete projects in a timely manner to protect communities from future disaster losses.

FEMA has made considerable progress in streamlining the program. These streamlining efforts have included the Agency's introduction of the Managing State Concept, which was pilot tested in Florida, Ohio, and North Dakota, and was recently expanded to include an additional 10 states based on positive evaluations of the three pilot states. Under this concept, states with both the interest and the capability are given greater autonomy in assuming responsibility through a Memorandum of Understanding with FEMA for conducting benefit-cost analyses, coordinating environmental reviews, preparing certain environmental documents for FEMA review, and making eligibility determinations. These changes in roles and responsibilities are intended to promote faster approval of projects and thus make it easier to meet the programmatic goal of obligating funds within 24 months of the disaster declaration.

The three pilots demonstrated that states and FEMA could improve the effectiveness of their partnership through the Managing State arrangement. The Managing States experienced quicker project approvals and fewer appeals of eligibility decisions than other states. One state leveraged the Managing State status to secure state and local funds to pay 67% of project costs, requiring only 33% in federal funds.

To further streamline the program and expedite project approvals, FEMA and Managing States have taken several actions to significantly reduce the overall time required for environmental reviews. We delegated authority to approve environmental assessments from FEMA headquarters to Regional Environmental Officers, removing duplicative and time-consuming documentation review. States that have assumed the Managing States status complete most environmental documentation and reviews. FEMA also expanded the list of projects that can be categorically excluded under the requirements of the National Environmental Policy Act.

To assist states and communities in more effectively implementing and managing the HMGP, FEMA published the Property Acquisition Handbook for Local Communities, the Property Acquisition Toolkit and the HMGP Desk Reference, and is in the process of finalizing the Applicant's Handbook and Project Implementation Handbook. A new training course, Managing the HMGP for States, emphasizes programmatic issues and was developed to provide states with detailed instruction on the complete project cycle—from project inception, at the local level, to project review, and, if approved, actual

implementation. This course is designed to complement the grants management, cost-effectiveness, and environmental courses that are already available.

**Program Emphasis:** *Streamline the delivery of Hazard Mitigation Grant Program funds to states and territories.*

**Program Performance:** Considerable progress was made during the last three years in obligating funds to states to spend on mitigation projects.

Table 1 shows the number of projects and federal

dollar share obligated by project type. By far the largest number of projects have been acquisition and relocation of real property to move structures out of harms way.

In FY 1998 and FY 1999, the three most commonly implemented measures were as follows:

- Acquisition and relocation of real property.
- Major, minor and localized flood control.
- Retrofitting structures against seismic and wind hazards.

Table 1 Hazard Mitigation Projects

| Project Type   | FY1998<br>Number of<br>Projects | Federal Share<br>Obligated | FY1999<br>Number of<br>Projects | Federal Share<br>Obligated | Total Number<br>of Projects | Total Federal<br>Share Obligated |
|--|---------------------------------|----------------------------|---------------------------------|----------------------------|-----------------------------|----------------------------------|
| Acquisition and Relocation of Real Property  | 255                             | \$106,295,940              | 275                             | \$137,166,833              | 530                         | \$243,462,773                    |
| Developing, Implementing and Enforcing Codes Standards, Ordinances and Regulations | 12                              | \$5,866,581                | 2                               | \$535,172                  | 14                          | \$6,401,753                      |
| Elevation of Floodprone Structures   | 40                              | \$13,471,612               | 28                              | \$7,290,414                | 68                          | \$20,762,026                     |
| Major, Minor and Localized Flood Control   | 175                             | \$77,129,185               | 161                             | \$230,397,290              | 336                         | \$307,526,475                    |
| Infrastructure Protective Measures (roads and bridges)                             | 23                              | \$6,312,890                | 41                              | \$7,606,115                | 64                          | \$13,919,005                     |
| Mitigation Plans   | 28                              | \$5,765,727                | 27                              | \$4,206,945                | 55                          | \$9,972,672                      |
| Other Equipment Purchase & Installation  | 44                              | \$3,464,318                | 65                              | \$7,312,217                | 109                         | \$10,776,535                     |
| Professional Education & Public Awareness  | 24                              | \$3,085,828                | 18                              | \$2,089,364                | 42                          | \$5,175,192                      |
| Retrofitting—seismic and wind  | 188                             | \$185,342,421              | 91                              | \$133,268,013              | 279                         | \$318,610,434                    |
| Utility Protective Measures (Electric, Gas, etc.)                                  | 29                              | \$15,850,302               | 22                              | \$5,492,802                | 51                          | \$21,343,104                     |
| Vegetation Management  | 28                              | \$6,295,214                | 27                              | \$2,412,072                | 55                          | \$8,707,286                      |
| Warning Systems  | 68                              | \$8,337,801                | 81                              | \$9,012,122                | 149                         | \$17,349,923                     |
| Water And Sanitary Sewer System Protective Measures                                | 35                              | \$10,152,691               | 51                              | \$15,957,543               | 86                          | \$26,110,234                     |
| <b>Total</b>   | <b>949</b>                      | <b>\$447,370,510</b>       | <b>889</b>                      | <b>\$562,746,902</b>       | <b>1838</b>                 | <b>\$1,010,117,412</b>           |

\*The above list of project types is not an exhaustive list of eligible measures but represent those measures most commonly implemented by states and local governments under the HMGP during the selected fiscal years.

In response to flood hazards, the HMGP primarily emphasizes non-structural measures such as the acquisition, relocation, and elevation of flood-prone structures. For FY 1998 and FY 1999, 530 acquisition and relocation projects were implemented at a total federal expenditure of \$243,462,773 million in HMGP funds. This demonstrates a strong interest from states and local governments in permanently eliminating future flood losses. While the risk-reduction efforts of a large number of communities center on non-structural measures, many other communities choose the construction or upgrade of structural flood control measures often due to factors—such as topographic, geographic, or economic factors, or even a commitment to maintain the existing social fabric of the community—which may preclude consideration of nonstructural measures. Within these same fiscal years, 336 major, minor and localized flood control projects were implemented at a total federal expenditure of \$307,526,475 million.

In addition to flood hazards, states and local jurisdictions have aggressively sought to protect their communities against seismic or wind hazards through retrofitting projects. In FY 1998, 188 retrofitting projects were implemented at a total federal expenditure of \$185,342,421 million. In FY 1999, 91 retrofitting projects were funded at a federal share totaling \$133,268,013 million. The decline in the number of retrofit projects from FY 1998 to FY 1999 represents the completion of an ambitious program in the State of California to fund seismic retrofit projects in the aftermath of the Northridge earthquake by the end of FY 1998.



A hurricane destroyed this coastal home. Retrofitting might have prevented it.



Raging waters destroyed this bridge in a matter of minutes. FEMA's Hazard Mitigation Grant Program could have helped protect and strengthen the bridge to prevent collapse.

Prior to the creation of the National Flood Insurance Program (NFIP), the public could not purchase flood coverage from insurance companies because of the uncertain risk. There was no national flood mapping program, and there were no federal minimum standards for floodplain management designed to reduce long-term flood losses. Thus, Congress created the NFIP with the National Flood Insurance Act of 1968. The NFIP, administered by FEMA's Federal Insurance Administration, is a partnership between the federal government and local communities. The federal government provides insurance against property losses from flood damages in communities that agree to adopt and enforce minimum federal floodplain management criteria. The criteria are designed to minimize future flood damages to existing and new structures.

Structures built to minimum NFIP standards sustain 77% fewer losses than those not built to such standards. It is estimated that \$770 million in damage to structures and contents is prevented each year in communities that enforce the minimum floodplain management ordinances. The local floodplain management ordinances are based on

the flood maps produced by FEMA. The maps identify the areas having a one-percent or greater chance of flooding in any given year. The flood maps are intended primarily to support the NFIP for insurance rating and claims information, floodplain management and repetitive loss use, and flood hazard identification purposes. However, these maps are also the foundation for many other FEMA programs: Public Assistance, to identify appropriate flood mitigation measures to pursue when providing federal grants to repair infrastructure; the Hazard Mitigation Grant Program, to ensure an accurate benefit/cost analysis for these investments; Project Impact, because the first step in becoming disaster resistant is knowledge of a community's risks; and the Dam Safety and Hurricane Programs, for use in evacuation studies and dam-break analyses. All of



## FLOOD HAZARD MAPPING

### Program General Purpose:

*Reinvent the floodplain mapping program and increase the use and effectiveness of mitigation information and tools provided to communities so that they may become more disaster resistant.*

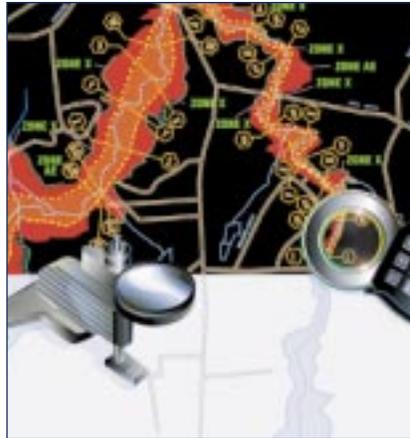
the aforementioned programs rely on the flood maps in their development of comprehensive, effective flood loss reduction measures.

To better support these programs, FEMA developed a 7-year plan to upgrade the 100,000-panel flood map inventory and to enhance its products and services. To advance this plan, FEMA has contacted all of the approximately 19,000 mapped NFIP communities to request information about local mapping needs. FEMA also is promoting the Cooperating Technical Partnership program to transfer the responsibilities for flood plain mapping to local government entities that possess the technical capability for mapping.

While FEMA is pleased to have been authorized to use up to \$15 million from the Disaster Relief Fund in FY 2001 to support flood map modernization activities, FEMA continues to aggressively seek alternative funding sources to complete this critical mission.

**Program Emphasis:** *Continue the congressionally mandated review of community flood map needs and utilize the data obtained from the first completed review cycle to improve floodplain mapping based on the availability of funds.*

**Program Performance:** As a pilot project, the Region III State NFIP coordinators (Delaware, Maryland, Pennsylvania, Virginia, West Virginia, and the District of Columbia), the Lower Colorado River Authority, and the Harris County, TX Flood Control District began entering mapping needs into the Mapping Needs Update Support System (MNUSS). Additional discussions were held with these entities to provide clarification regarding the collection of mapping needs and the data entry procedures. Discussions were held with the Association of State Floodplain Managers regarding the benefit-cost calculations used in MNUSS. In addition, mapping needs data obtained from MNUSS was provided to the State of North Carolina for its statewide mapping



FEMA's Map Modernization Initiative emphasizes modern digital production techniques (right) over old manual methods (left).

effort, and assistance was provided to local officials regarding assessment and update of their flood hazard maps.

**Program Emphasis:** *Implementation of criteria for digital mapping standards.*

**Program Performance:** Development of the new digital Flood Insurance Rate Map (FIRM) product involves converting the existing inventory of manually produced FIRMs to a digital format. The new digital product will be able to address maintenance needs as well as restudy needs. The digital FIRM (DFIRM) product has been designed to allow for the creation of interactive, digital flood hazard

maps. Linkages are built into a database to allow users options to access the engineering materials used to develop the map (e.g., hydrologic and hydraulic models, flood profiles, floodway data tables, digital elevation models, and structure-specific data such as digital elevation certificates and digital photographs of bridges and culverts). FY 2000 accomplishments toward these goals include:

- Completion of graphic specifications and standard database design for the DFIRM product.
- The first DFIRM to use the new graphic specifications was completed for Pike County, PA.
- The second DFIRM produced using the new graphic specifications, for Dade County, MO, is currently in the community review process.

**Program Emphasis:** *Completion of the congressionally mandated coastal erosion study.*

**Program Performance:** The 1994 Flood Insurance Reform Act specified that an Evaluation of Erosion Hazards Study be conducted. This study is a comprehensive analysis of how erosion affects the NFIP. It includes the mapping of erosion hazard areas, an analysis of the economic impacts of erosion on communities and properties, losses to the



State-of-the-art remote sensing technologies allow more cost effective and accurate imaging.

National Flood Insurance Fund caused by erosion, potential impact on insurance pricing and availability, and an assessment of erosion control activities undertaken by state and local government agencies. The report was completed and delivered to the Office of Management and Budget and to the Congress during the third quarter of FY 2000.

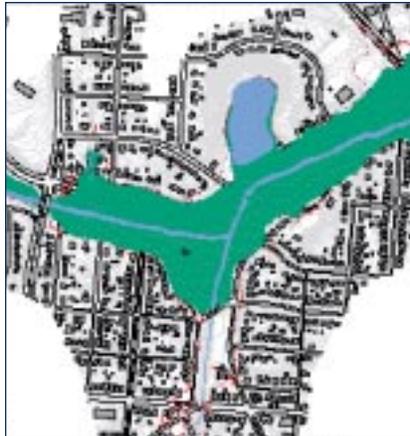
**Program Emphasis:**

*Development of a portfolio of products and processes promoting appropriate mitigation planning and activities.*

**Program Performance:** FEMA's Flood Hazard Mapping Web site has been on-line since October 1998. It is regularly updated with developments in the flood hazard mapping arena and a subscription service is available to those who wish to be notified of updates to the Web site. The address is [www.fema.gov/mit/tsd](http://www.fema.gov/mit/tsd).

**CONCLUSION**

FEMA's mitigation efforts have captured the imagination of state and local governments to work to break the cycle of damage-repair-damage-repair that has for too long characterized response to disasters. FEMA and partners are making communities more disaster resistant, especially through *Project Impact*. FEMA continues to take steps to identify and remove repetitive loss structures from harms way. Hazard Mitigation Program projects are assisting states and localities to strengthen sites through multiple measures which will decrease damage from natural and man made disasters. FEMA's Map Modernization program contributes to sound zoning and building decisions. FEMA's mitigation efforts are contributing to building safer communities and to reducing costs and heartache from future disasters.



Digital spatial data are powerful tools for planning and design.



FEMA's new flood maps use economical public domain digital orthophoto imagery produced by the United States Geological Survey.

# PREPAREDNESS, TRAINING AND EXERCISES DIRECTORATE

**P**reparedness is a vital element to mitigating and responding to a disaster. The focus of FEMA's preparedness strategy is on risk identification; emergency management professional development; establishment of capability performance measurements and assessment through tests, exercises and real world experiences; planning and public education; and partnerships with the private sector and other nations. This results in an integrated partnership of trained people, well exercised plans, and fully-capable systems, procedures, and facilities at all levels of government and the private sector. And the strategy fosters a decentralized capability for state and local preparedness and response for all but the most catastrophic disasters.

FEMA provided almost \$142 million in Emergency Management Performance Grants (EMPG) to all 50 states to improve crucial state emergency management capabilities in the areas of emergency planning and operations, education of emergency personnel and the public, implementation of emergency operations centers, and exercises to test and evaluate capabilities, as well as mitigation and anti-terrorism activities.

The programs included directly under this Directorate were allocated \$33.4 million of emergency planning, salary, and administrative resources to support the above activities, as well as other key activities such as providing training to federal, state, and local emergency responders at FEMA's Emergency Management Institute (EMI), and through extensive independent study courses. FEMA staff also extend technical assistance to all levels of the emergency management community to include other programs such as Radiological Preparedness and Hazardous Materials, and sponsor and coordinate a number of comprehensive exercises.



The CAR allows state and local emergency planners to identify their communities' risks and capabilities and thereby better plan for response.

## CAPABILITY ASSESSMENT FOR READINESS

**General Program Purpose:** *Improve state emergency management capability.*

State and local emergency management personnel need to mitigate against, prepare for, respond to, and recover from disasters and emergency situations which can occur in their jurisdictions.

**Program Emphasis:** *Continue to enhance the process by which states can identify the most critical strengths and weaknesses in their emergency management readiness and capabilities.*

FEMA and the National Emergency Management Association, an organization composed of all state emergency directors, have developed the Capability Assessment for Readiness (CAR) process for state emergency managers, which is designed to identify strengths and deficiencies in emergency management. The results assist federal, state, and local emergency officials in establishing emergency management priorities and analyzing program performance.

**Program Performance:** The CAR is a self-assessment process focusing on 13 Emergency Management Functions (EMFs) that address the full range of critical emergency management areas required to ensure effective mitigation, preparedness, response, and recovery from disasters. Each EMF is subdivided into attributes and these attributes are further divided into characteristics. Attributes are composed of broad criteria by which the EMF can be assessed. Characteristics are more detailed criteria that clarify each of the attributes, and together they define the function in fine enough detail to specify a measurable capability that enables the State CAR to serve as a strategic planning and budgeting

tool. Attributes and characteristics under each EMF are scored on a scale of 1 to 5 and “NA” for Not Applicable, to provide a quantitative rating. The rating for each EMF is derived by averaging the respective attribute scores.

The State CAR is a dynamic process coordinated by the states’ office of emergency management and involving state officials from key offices and departments throughout the state government (e.g., highways, health, welfare, police and fire). Successful completion of the State CAR process is dependent on state emergency managers having conducted a threat/hazard and vulnerability analysis so that they can more accurately define the threats and hazards they face, their approximate chance of occurrence, and their state’s vulnerability to them. This enables states to effectively target their program resources to areas in their emergency management program having the greatest need. In addition, states have the information they need for strategic planning and for justifying program and resource requirements or new initiatives.

Often the State CAR process is conducted with FEMA regional staff in attendance to ensure the close coordination and cooperation of state and federal government emergency assets and personnel. Together, the participants in the State CAR process develop and refine their shared vision of emergency management in the state, and the steps required to ensure rapid, effective federal assistance should this become necessary.

A National Summary Report (NSR) was prepared in 1997 based on the data obtained from the first CAR process completed in 1996. The State CAR allowed state emergency managers to quickly and flexibly

use the data from their State CAR to set priorities, plan strategically, and explain the state’s emergency management capabilities and needs to their governor, state legislatures and the public. Since then, the State CAR has undergone significant revision. The revised and improved State CAR instrument and process was issued in May 2000 and was again well received and completed by all states, territories and insular areas. One of the results of the revision was reducing the number of attributes and characteristics, as shown above, to make the CAR easier to use.

In conjunction with the year 2000 issuance, new computer features made the State CAR easier to use, more powerful, and helped to ensure that different responders will interpret the same attributes and characteristics the same way.

The results of the NSR 2000 are not yet completed and will be issued in FY 2001. But preliminary compilations show the following summary of attribute scores by capability rating:

| Capability Rating      | Percent Fully |
|------------------------|---------------|
| Capable (5)            | 3%            |
| Very Capable (4)       | 61%           |
| Generally Capable (3)  | 35%           |
| Marginally Capable (2) | 1%            |
| Not Capable (1)        | 0%            |
| Total                  | 100%          |

An important recent development is the drafting of a Local CAR instrument and process for use by cities and counties throughout the United States. Once completed, this Local CAR will complement the State CAR, and will enable jurisdictions throughout the states to conduct emergency management self-assessments. For standardization purposes, the Local CAR uses the common software of the State CAR along with the same 13 EMFs and the same scoring system. However, the Local CAR allows for some customization of the instrument within these 13 EMFs to suit the needs and requirements of specific local jurisdictions. The development of the Local CAR is of particular importance in that many localities have substantial emergency management assets and capabilities that state emergency managers can take into account to determine what are the

### Changes to National Summary Report (NSR) 2000 Assessment Elements From NSR 1997

|                                 | NSR 1997 | NSR 2000 | Percent Reduction |
|---------------------------------|----------|----------|-------------------|
| Total Number of EMFs            | 13       | 13       | 0%                |
| Total Number of Attributes      | 210      | 104      | 50%               |
| Total Number of Characteristics | 1,688    | 454      | 73%               |

state-wide emergency management resources, capabilities and needs.

FEMA is also working with the National Congress of American Indians and a tribal working group to develop a Tribal CAR. This initiative will be an integral part of, and complement to the state and local emergency management capability assessments.

## HAZARD-SPECIFIC PROGRAMS

### General Program Purpose:

*Provide the guidance, technical assistance, coordination, and sharing of information to help state and local emergency managers prepare for hazardous materials (HAZMAT) and radiological emergencies.*

FEMA provides support directed toward technological hazards, including hazardous materials and radiological hazards through its Preparedness, Training and Exercises (PT&E) Directorate as well as through the United States Fire Administration (USFA). Hazardous materials emergency preparedness is of concern to communities in the United States because of the presence of these materials and because of the large role chemical manufacturing, transportation, storage and disposal industries play in the U.S. economy. Radiological emergency preparedness is of particular concern to those communities surrounding the licensed nuclear power facilities in 31 states. FEMA's technological hazards mission predominantly focuses on providing assistance to communities and states in their planning, training, and general preparedness efforts for these risks.

**Program Emphasis:** *Provide reasonable assurance that the health and safety of the public living in the vicinity of operating commercial nuclear power plants can be protected.*

FEMA assists the state, tribal nation, and local jurisdictions that fall within the Radiological Emergency Preparedness (REP) emergency planning zones to plan and prepare for a



Hazardous materials safety is a serious concern for state and local emergency managers.

timely and appropriate response to a radiological incident at an operating plant, and to educate the public on these measures. FEMA is also charged with providing reasonable assurance findings with respect to offsite preparedness for the 67 commercial nuclear power plants that the Nuclear Regulatory Commission (NRC) licenses.

**Program Performance:** FEMA's REP Program assisted jurisdictions within the emergency planning zones of operating commercial nuclear power plants to document and maintain reasonable assurance by reviewing REP plans; providing

guidance, policy, and regulations; conducting REP training; and conducting, evaluating, and reporting on REP exercises. In addition, as a result of the discipline of the REP Program, participating jurisdictions were better prepared to perform emergency functions in responding to non-REP emergencies.

**Program Emphasis:** *Ensure that the health and safety of the public living in the vicinity of permanently shut down and decommissioning commercial nuclear power plants can be protected.*

When commercial nuclear power plants have permanently shut down and are in the process of decommissioning, the potential hazard for the offsite population is a loss of coolant from the pools containing the spent nuclear fuel removed from the reactors. This hazard and its consequences differ

from the hazard posed by an operational plant. Therefore, emergency preparedness measures, including the phasing out of offsite emergency preparedness as the radionuclides decay and the hazard decreases, need to be specific to the situation where a plant is in the process of decommissioning.

**Program Performance:** In FY 2000, the NRC undertook a rule-making that will amend the NRC's existing regulations in order to address emergency preparedness requirements for plants that have permanently shut down and are in the process of decommissioning.



The REP Program helps nuclear power managers and communities prepare for potential emergencies.

FEMA is assisting the NRC in developing appropriate offsite emergency preparedness requirements and guidance for decommissioning plants.

**Program Emphasis:** *Implement the REP Program streamlining recommendations that resulted from a reexamination of all aspects of the Program and the identification of specific areas where administration of the Program can be made more efficient, while still maintaining public health and safety.*

For a number of years, REP Program stakeholders have asked FEMA to streamline its Program. These stakeholders cited the Program's maturity and the overly-prescriptive administration of the Program as the bases for their requests.

**Program Performance:** In 1996, FEMA initiated a strategic review of the REP Program and established a Steering Committee to guide the review and formulate recommendations for streamlining. The Steering Committee forwarded 33 Recommended Initiatives in March 1999, to the REP Program office for implementation, and an Oversight Working Group then developed the details of implementation. After review and revision of their recommended products and input from the REP community, FEMA posted the final products on the Web. By the conclusion of FY 2000, FEMA had implemented 21 of the 33 recommendations and had scheduled pilot tests, to be held from October-December 2000, of the initiative pertaining to REP exercise evaluation. Of the 11 remaining Recommended Initiatives, 2 are ongoing in nature, 8 are well on their way to implementation, and 1 requires a rulemaking, which is in process.

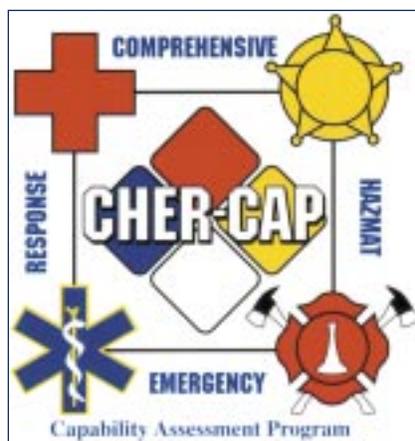
**Program Emphasis:** *Identify the problems and challenges facing the state and local emergency response/first responder communities in HAZMAT prevention, preparedness and response, and provide technical assistance to state and local HAZMAT communities to enhance their HAZMAT capabilities and address their needs.*

The risks to public safety, public health, and property damage presented by potential accidental or intentional HAZMAT releases exist in every community in the nation. It is the single most pervasive risk in

the comprehensive emergency management spectrum. There is a continuing need for communities to achieve and maintain HAZMAT emergency response preparedness, and there are numerous applicable federal and state laws and regulations, including those requiring community preparedness and first responder training for such incidents.

**Program Performance:** *The Comprehensive HAZMAT Emergency Response-Capability Assessment Program (CHER-CAP) is a focused methodology for the Local Emergency Planning Committees (LEPC), or Tribal Emergency Response Commissions (TERC), to assess and upgrade their community's ability to respond to a serious HAZMAT incident. This program is a voluntary, community-based, coordinated sequence of activities designed to review and upgrade capabilities through risk assessment, emergency operation plan review, training needs assessment, training delivery, drills, a full-scale peer evaluated mass casualty exercise, and a no-fault post exercise report.*

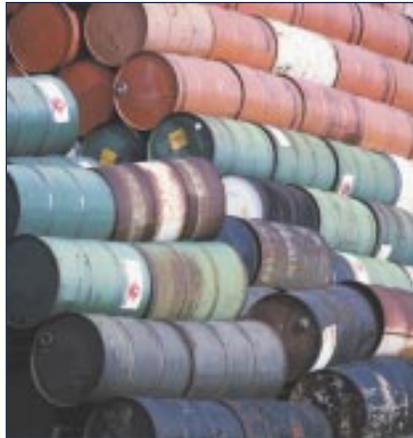
The CHER-CAP process is conducted in phases spanning a total of four to six months, and fosters cooperation and builds operational capabilities among firefighters, emergency medical service, law enforcement, emergency management, public works departments, hospitals, industry, and volunteer agencies—all members of the emergency management partnership. FEMA serves as the overall coordinator, catalyst, and resource gateway for CHER-CAP. The Environmental Protection Agency, and the Departments of Transportation, and Health and Human Services, are our key federal partners.



FEMA offers CHER-CAP to assist local communities in improving their HAZMAT emergency response capabilities.

In FY 2000, CHER-CAPs were completed in Rhode Island (LEPC VIII including Cranston, East Greenwich, and North Kingstown); New Mexico (San Juan, Curry, and Roosevelt Counties); Pennsylvania (Lehigh County); and Louisiana (Caddo and Bossier Parishes). Five additional jurisdictions are active in the CHER-CAP process and 17 have been selected for participation, including 3 tribal nations (St. Regis Mohawk in New York; Pueblo of Acoma in New Mexico; and Umatilla in Oregon), for a total of 27 jurisdictions in 20 states, territories, and tribal nations.

Regarding the Rhode Island experience, the CHER-CAP exercise was conducted on June 21, 2000 with Cranston, Warwick, East Greenwich, and North Kingstown. One month later, that jurisdiction experienced a real HAZMAT incident when a tanker truck spilled 11,000 gallons of jet fuel on a highway underpass, down a ramp, and into a drainage ditch and the Pawtuxet River. The fuel ignited, creating a 3,000 degree inferno. Robert Warren, one of the two responding fire chiefs, credited the CHER-CAP with directly contributing to an effective response.



Hazardous waste poses a real threat to communities' safety.

On July 22nd, FEMA Region VI coordinated a CHER-CAP exercise in Farmington, NM, with over 400 participants from 64 organizations, including the Navajo Nation, and 50 emergency vehicles, for the largest exercise in San Juan County's history.



The first CHER-CAP in FEMA Region III was completed with an exercise in Lehigh County, PA on September 16th. The scenario involved a criminal act inside an industrial plant resulting in the simulated release of methyl-ethyl-ketone. Lehigh County Emergency Coordinator John Conklyn commented that the greatest benefit to the community was improved emergency medical capability as four area hospitals updated their decontamination training and procedures, then practiced them during the exercise.

The largest-ever CHER-CAP exercise was conducted at the Louisiana State Fair Grounds on September 20th with Caddo and Bossier Parishes. The scenario simulated a school bus crashing into a tanker truck carrying isobutyric acid. The crash resulted in the acid leaking in a steady stream over the accident scene and contaminating 30 passengers on the bus. Over 240 additional moulaged victims (not involved in the bus-tanker incident) were processed to 10 area hospitals. Approximately 100 organizations, agencies, and facilities participated in the exercise. Chuck Mazziotti, Director of the Caddo-Bossier Office of Emergency Preparedness, said it was the best community disaster drill he had ever seen in the 18 years of holding them.

In partnership with the National Fire Academy of the United States Fire Administration, PT&E staff

have established a CHER-CAP Technical Assistance Team of accomplished practitioners who are available to advise and assist local jurisdictions, states, tribal nations, and regions in conducting the entire CHER-CAP process. An initial group of 16 individuals completed the pilot training course conducted in August at the Academy.

**Program Emphasis:** *Provide maximum protection to the communities surrounding the eight Army chemical stockpile sites.*

FEMA's Chemical Stockpile Emergency Preparedness Program (CSEPP) works closely with the U.S. Army and affected state and local governments to provide maximum protection for the environment, the general public and the personnel at the 8 chemical stockpile installations located in the continental United States.

Forty counties in 10 states participate in the Program. The Army

stockpile sites and participating states are:

- Anniston Chemical Activity, located on Anniston Army Depot in Alabama;
- Blue Grass Chemical Activity, located on Blue Grass Army Depot in Kentucky;
- Deseret Chemical Depot in Utah;
- Edgewood Chemical Activity, located in the Edgewood Area of Aberdeen Proving Ground in Maryland;
- Newport Chemical Depot in Indiana and Illinois;
- Pine Bluff Chemical Activity, located on Pine Bluff Arsenal in Arkansas;
- Pueblo Chemical Depot in Colorado; and
- Umatilla Chemical Depot in Oregon and Washington.

**Program Performance:** Essential systems designed to protect the public are largely in place and operational. Where they are incomplete, CSEPP is taking aggressive action to bring them into full compliance with the Program National Benchmarks and performance measures.

FEMA and each of the CSEPP communities conducted a joint on-post/off-post emergency exercise during FY 2000. FEMA formally evaluated these exercises,

prepared written reports and worked with the communities to develop action plans to address the identified issues.

Since its inception in FY 1999, the CSEPP Training Web site at [www.emc.ornl.gov](http://www.emc.ornl.gov) has recorded over 27,000 down-loads of CSEPP training materials. This information has been utilized by both the CSEPP and Domestic Preparedness communities for the protection of their populations against the release of chemical weapons.

Each of the communities in the CSEPP accomplished a number of significant activities that directly improved their capability to protect against, and respond to a chemical stockpile incident. Among the many highlights were:

- Medical training was provided to over 500 personnel; and another 14,800 received a variety of specialized training;
- Over 67,000 tone-alert radios were delivered;
- Four sites received a total of 12,000 Mark-1 Auto Injectors;
- The Kentucky CSEPP community procured 10,000 Shelter-In-Place kits and 583 Power Air-purifying Respirators; and
- Several communities purchased protective garments for their emergency responders.

The annual CSEPP Medical Conference was held November 17-18, 1999, in San Antonio, TX. The goals of the conference were to improve medical preparedness at each of the CSEPP sites, to share the medical preparedness best practices developed at each CSEPP site, and to share the CSEPP lessons learned among preparedness programs to foster improved medical preparedness in the United States.

FEMA headquarters and the U.S. Army co-hosted the FY 2000 CSEPP National Conference in Little Rock, AR, July 18-20, 2000. The conference was attended by approximately 450 CSEPP participants representing the U.S. Army, FEMA headquarters and regions, other federal



Cannisters of gas await destruction.

agencies, state and local governments, contractors, and other organizations involved in the Program.

## TRAINING

### General Program Purpose:

*Increase the knowledge and expertise of federal, state, and local emergency management workforces and the public through an extensive curriculum of training courses and materials.*

A primary factor in building a nationwide, inter- and intra-governmental cadre of professional

emergency managers and an informed public is the availability of a wide variety of training modules that are focused on many individual needs, and which are provided through readily available sources.

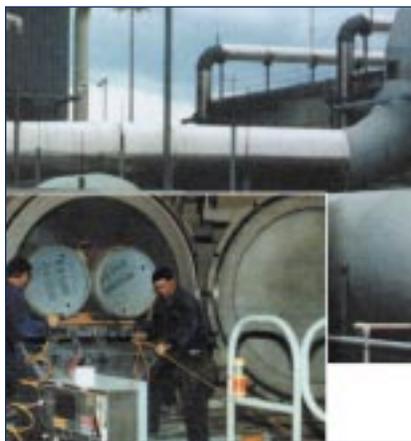
**Program Emphasis:** *Conduct 255 EMI resident training course activities to train 7,000 students, including 31 Integrated Emergency Management Courses (IEMCs), and host training conferences and workshops.*

Students from throughout the country attend EMI for traditional classroom training in a wide variety of emergency management topics. EMI staff provide the most current information and teaching methods, and the EMI classrooms and facilities significantly enhance the learning experience. In addition to courses designed for individual education, EMI trains state instructors to provide state and local emergency management training back in their own localities, and conducts the extremely popular

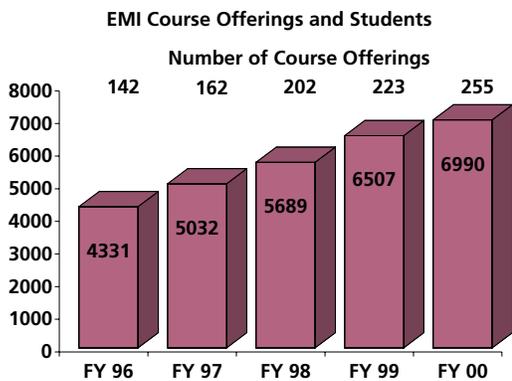
Integrated Emergency Management Courses (IEMCs) which are customized to a locality or to a hazard, and hosts numerous conferences and workshops.

**Program Performance:** The EMI course delivery has steadily increased over the past four years as is shown in the chart below.

The results of follow-on surveys sent to each EMI student three months after completion of the class are excellent. During FY 2000, only three percent (3%) of the students reported that the instruction



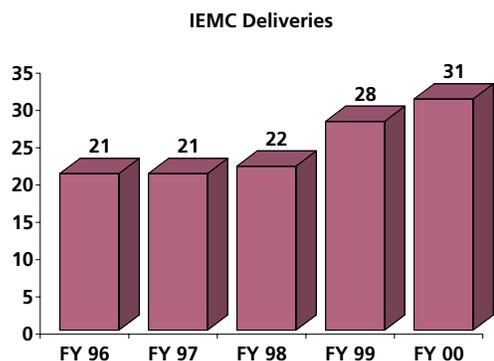
One of the eight sites where chemical stockpile supplies are destroyed.



was not applicable and was not being used. Seventy-one percent (71%) reported that they are using the instruction either

in their day-to-day jobs or on emergency assignments. Twenty-nine percent (29%) reported they had no opportunity to use the instruction. This last figure is expected given the nature of the work by emergency managers at all levels of government. In some cases, no opportunity means that the community has not experienced an emergency/disaster for which the participants could apply the EMI training.

The number of IEMC's delivered continued to increase. One of the FY 2000 IEMCs was a special event offering to help Los Angeles officials prepare for the Democratic National Convention. EMI staff developed an exercise that simulated 3 days of the convention, and 80 people participated.



Two State IEMCs were conducted; one for Nevada state officials with 100 participants, and one for North Dakota state officials with 138 participants.

Also, during FY 2000, 230 local officials from throughout the nation attended the six offerings of the IEMC Recovery & Mitigation. And the first IEMC for an Indian community was conducted for the Gila River Indian community in Casa Grande, AZ with 66 participants.

EMI also hosts a wide variety of conferences and workshops at our Conference and Training Center (CTC). In all, EMI hosted 28,328 student days at the CTC in FY 2000.

**Program Emphasis:**

*Provide a wide variety of EMI non-resident training activities through diverse media such as the Internet, FEMA's Emergency Education NETwork (EENET), independent study course, and institutions of higher education.*



An IEMC in progress.

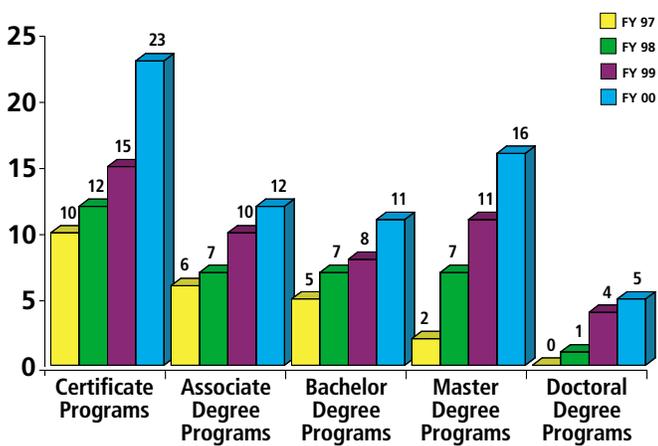
**Program Performance:** Selected Public Assistance Program training is being converted to computer based training (CBT) format. One course was converted in FY 2000 and two more will be converted to CBT in FY 2001. The "FEMA Orientation" was developed as an independent study course for disaster employees, and the National Emergency Management Information System (NEMIS) training CDs were developed for disaster workers for use as an orientation to the software system.

The Community Emergency Response Team (CERT) program trains civilians in preparedness and response skills to care for themselves, family members, and neighbors following a disaster. CERT continues to grow, with communities in 28 states conducting the training. Notably, Florida has hired a CERT coordinator and has CERT programs in 22 of their 67 counties. EMI, 6 states, and the Department of State offered CERT Train-the-Trainers (TtTs) during FY 2000. The Department of State trained embassy medical personnel who, in turn, will implement the program at their embassies. There is also a growing interest in the use of CERT to train school system staff to handle immediate needs following a major event. FEMA maintains a CERT Web site at [www.fema.gov/emi/CERT](http://www.fema.gov/emi/CERT), conducts TtT offerings, and provides training materials to communities. There is an electronic newsletter entitled the "Connection" located at <http://www.naem.com/connection.html>. It features articles written by CERT program managers from around the country.

One of EMI's Higher Education Project goals is to see an emergency management-related degree program in every state by the year 2001. When the project began in FY 1995, the University of North Texas, Thomas Edison State College, and the Rochester

Institute of Technology were the only schools offering degrees in emergency management. Since FY 1995, the Higher Education Project has been working with a variety of colleges and universities to develop classroom-based, upper division (junior/senior), baccalaureate-level courses to support emergency management and related undergraduate and graduate programs. To date, there are 11 completed courses and 9 currently under development. The Higher Education Project also developed a prototype curriculum for associate degrees in emergency management based on existing EMI training courses.

### Emergency Management-Related Degree Programs



In addition to the number of higher education programs implemented in each fiscal year shown above, 27 colleges and universities were investigating/proposing the development of an emergency management program in FY 2000. At the end of FY 2000, colleges/universities in 48 states and Puerto Rico either had an in-place emergency management or related program or were investigating such.

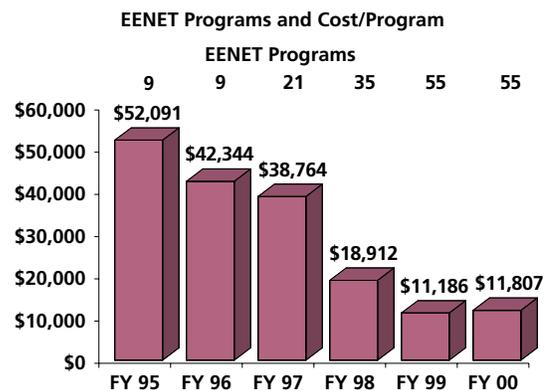
EMI and the National Weather Service (NWS) continue to work in partnership to provide basic meteorological information to emergency managers via two courses, Community Hurricane Preparedness (IS 324) and Anticipating Hazardous Weather and Community Risk (IS 271). IS 324 covers hurricane meteorology and evacuation decision-making. It is available to the emergency management community on CD-ROM and to the general public on the Internet. Since May of 1999, 1,939 students have enrolled with 1,380 completing the course. By the end of December, EMI and NWS will make IS 271 available. It covers basic meteorology, weather hazards, forecast products,

and anticipating severe weather. It includes a case study of weather events that led to the flooding that occurred in Fort Collins, CO in July 1997.

Since 1986, over 2,629 men and women in emergency management have completed all course requirements and received a Professional Development Series (PDS) Certificate. They have worked to develop or refine emergency management skills in a minimum of seven areas: fundamental principles; operations planning for all-hazards; leadership; communications; decision-making; management of volunteers; and exercises. Almost 1,750 certificates (more than half of the total) have been issued in the last five years. Since inception, approximately 8,000 students complete PDS courses each year. The impact of these courses on the profession of emergency management has been enormous, with over 100,000 course completions.

The Emergency Education NETWORK (EENET) has made great strides since calendar year 1995, not only in the cost per program, but also in the varied number and kind of programs. In calendar year 1995, EENET aired 9 broadcasts at an average cost of \$52,091 each. In FY 2000, 55 programs were aired at an average cost of \$11,807 each.

The yearly breakdowns by year and cost per program are:



Until 1997, EENET programs were produced and broadcast entirely by contract staff/crew and were usually 4-1/2 hours in length. Starting in early 1997, the programs became shorter in length, making them more classroom friendly. EENET also began to produce some programs with in-house FEMA staff functioning as crew. Accordingly, not only was the cost per program reduced, but the quality and quantity improved dramatically, resulting in a number of awards presented to EENET over the years including 20 major national awards for 1999 programs.

During 1998 and 1999, EENET programs not only increased in number, but also decreased in cost. The expansion of EENET programs to a weekly schedule at a reduced cost per program would not have been possible without the help of many outside partnerships. Through these partnerships during FY 2000, EENET was not only able to save program costs, but was also able to produce many stand-alone videotapes for use in FEMA training programs.



Emergency Education NETwork programs help train thousands of emergency management professionals annually.

EMI continues to assist local communities in their mitigation efforts by providing training in accessing and interpreting FEMA's Geographic Information System (GIS) and digital hazard maps and software. In support of the Map Modernization Program, EMI provided several new courses designed to enable local jurisdictions designated as Cooperative Technical Communities to use and update FEMA's digitized flood insurance rate maps. This included courses on FEMA Mapping Software, Coastal Theory and Mapping, GIS Advanced Mapping Technology, National Flood Insurance Program Map Revisions and Amendments, and the Cooperative Technical Community hands-on GIS Workshop. These new courses augmented the existing GIS-based courses, Digital Hazard Data and the Basic Hazards U.S. (HAZUS) Training.

To assist engineers, architects, and local building officials in mitigating the impact of floods and coastal storms, EMI developed and pilot tested the Residential Coastal Construction course, providing training in use and interpretation of FEMA's new engineering manual on coastal construction. This course is a companion to the existing Retrofitting Flood-Prone Residential Structures course. To assure that information is available when needed, an independent study prerequisite is under development, as well as a two-day, abbreviated version of the course for delivery in states and communities during the post-disaster rebuilding surge. The two-day course will be pilot tested in a coastal community during early FY 2001.

In FY 1999, EMI, in conjunction with FEMA regions and the states, developed the Master Exercise Practitioner (MEP) program to be administered by the state emergency management agencies and our local government partners. Nine courses are

available for state and local governments to train personnel how to design, develop, deliver, and evaluate disaster exercises. To successfully complete the MEP, all nine courses must be completed. During FY 2000, Texas and Michigan began program implementation, and anticipate that, during the next two years, 40 emergency management personnel will have completed the MEP requirements. EMI will work to have all states begin implementing and support the MEP program during the next two years.

In 1995, EMI created the Master Trainer Program to train state, local,

and federal trainers on how to conduct needs assessments, design training, develop training materials, and conduct and evaluate training. The program consists of 6 courses that parallel the Instructional Systems Design process and a practicum that requires development of 16 hours of performance-based training. Students complete work assignments using real projects from their work environment. For many participants, it is their only training on how to design and conduct training. During FY 2000, 20 people were accepted into the program, bringing the total to 138. There were 198 course completions in the program's 6 courses, and 6 people completed the practicum and all 6 courses.

During FY 2000, the Training Division developed a Web-based version of Course Evaluation to be delivered in FY 2000. This course will still use an instructor to interact with students, but students will not need to travel to EMI to complete the course. The course is only available using the Internet and is the second course of this type to be offered. It provides program participants an opportunity to see how the methodology could be used to deliver some of their training.

## **EMERGENCY FOOD AND SHELTER PROGRAM**

**Program Emphasis:** *Continue to support and fund the National Emergency Food and Shelter Board in the effective provision of grants to providers of emergency food and shelter services.*

The Emergency Food and Shelter (EFS) Program was created by Congress in 1983 to help meet the needs

of hungry and homeless people throughout the United States and its territories by allocating funds for the provision of food and shelter. This program supports more than 11,000 local nonprofit organizations and government agencies throughout the country which advertise the availability of funds, assess community needs, make allocation choices, and assure the coordination of efforts and systems to prevent duplication of benefits.

FEMA passes funds appropriated for this program through in their entirety to the Program's National Board which is composed of heads of national charitable organizations, which then works with the local boards to distribute the funds rapidly and equitably to local jurisdictions to supplement community efforts to provide emergency food and shelter. This add-on approach allows the program to keep a low administrative overhead of less than three percent (3%) of the total allocation.

**Program Performance:** The EFS National Board has continued to rapidly distribute funds to areas in the nation that have higher than average levels of unemployment and poverty. During its first 13 years of operation, the program disbursed over \$1.4 billion in vital non-disaster related financial assistance to these communities.

## **CONCLUSION**

It is imperative that the emergency management community plan for, and be prepared to respond to emergencies and disasters in their communities. The programs and funds described above (other than the Emergency Food and Shelter Program which is unique), significantly increase their preparedness by helping them focus on identifying risks to their communities; put plans in place to manage their response; train so they have the skills and capabilities needed; and exercise those skills so they have more experience when disasters or emergencies occur.

# FEDERAL INSURANCE ADMINISTRATION

## THE NATIONAL FLOOD INSURANCE PROGRAM

In 1968, the Congress of the United States created the National Flood Insurance Program (NFIP), in response to mounting losses and the escalating costs of natural disasters to the American taxpayer. The NFIP is designed to help reduce flood losses through sound and safer building standards and mitigation and to help pay for flood losses through insurance rather than federal disaster assistance.

There are three components to the NFIP: Hazard Identification and Risk Assessment, Mitigation (both discussed in detail in separate sections of this report), and the Insurance component (discussed below).

The NFIP, the largest single line property insurer in the nation, has approximately 4.3 million policies in force in over 19,000 participating communities with coverage totaling approximately \$548 billion. The NFIP works in partnership with local communities, and the insurance and lending industries. Federal-backed flood insurance is made available in those communities that adopt and enforce floodplain management ordinances designed to reduce future flood damage. The Program protects property owners by providing an insurance mechanism that helps individuals and businesses recover financially from floods. It protects lenders from uninsured flood losses and taxpayers from having to provide disaster assistance to uninsured flood victims. For participating communities whose floodplain management ordinances promote better and safer construction, flood damage is lessened and recovery is accelerated.

**Program General Purpose:**  
*Coordinate the insurance and floodplain management components of the National Flood Insurance Program.*



**Program Emphasis:** *Through NFIP insurance and floodplain management activities reduce expected annual flood disaster costs to FEMA and losses to taxpayers by more than \$1 billion.*

Insurance rules and rating mechanisms, e.g., coverage and premium rates, are used as economic incentives and disincentives to reinforce mitigation through building requirements that reflect sound floodplain management. Incentives and disincentives are administered at the individual

and community levels and include operation of the Community Rating System (CRS). NFIP insurance marketing activities include promotion of flood mitigation, including support of *Project Impact*. All of these activities will result in better management and decision-making.

**Program Performance:** A successful refined methodology (developed in FY 1999) was applied during the FY 2000 Annual NFIP Rate Review. Using insurance experience to project reductions in losses for the population of buildings constructed to NFIP standards shows estimated savings of over \$1 billion in FY 2000.

**Program General Purpose:** *The development and implementation of an Agency repetitive loss strategy to significantly reduce NFIP repetitive losses.*

**Program Emphasis:** *Development of the mechanism and systems for dealing with NFIP repetitive loss properties.*

**Program Performance:** Repetitive loss properties have a major, adverse financial impact on the NFIP. To address this problem, NFIP efforts were focused on the identification of properties and the transfer of insurance policies on these properties to a central, special servicing facility designed to effect-



Floods cause more damage than any other natural disaster.

ively oversee claims and to coordinate and facilitate insurance and mitigation actions, e.g., Increased Cost of Compliance claims and Hazard Mitigation Assistance Grant Programs (HMGP) and Flood Hazard Mitigation Assistance (FHMA) grants. Systems were completed that identify Repetitive Loss (RL) properties and information is now available to state and local governments to assist them in targeting properties for mitigation actions. The servicing facility, policy transfer and other insurance mechanisms were developed in cooperation with the Write-Your-Own insurance companies.

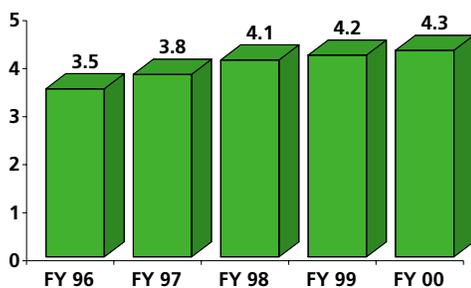
**Program General Purpose:** *Enhance the recovery of individuals, businesses, and communities after flooding events by increasing the number of NFIP policies-in-force.*

**Program Emphasis:** *Increase the number of NFIP policies-in-force by 5 percent.*

Increasing NFIP awareness, promoting policy sales, and coordinating mandatory flood insurance purchase requirements will help ensure that the recovery of individuals suffering flood losses is made possible by insurance as opposed to disaster relief funds.

The increases in the number of flood insurance policies is determined by comparing annual increases as shown in current year-end NFIP policies-in-force reports, compared to the prior year's year-end policy count.

Policies-In-Force From FY 1996–2000 (In Millions)



**Program Performance:** At the end of FY 2000, the NFIP policy count increased by 81,965 from 4,187,729 to 4,269,694 policies, an increase of

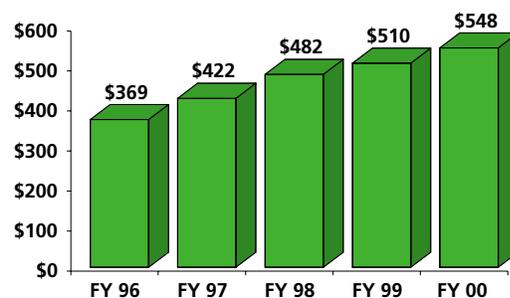
1.96% over FY 1999, and 39% of the annual growth goal. However, this year's growth was achieved during a period of minimal flooding activity and other special conditions.

Insurance-in-force in FY 2000 totals \$548,091,056,900.

The increases in policies-in-force and insurance-in-force mean that more property owners are in a better position to recover from flood losses. These

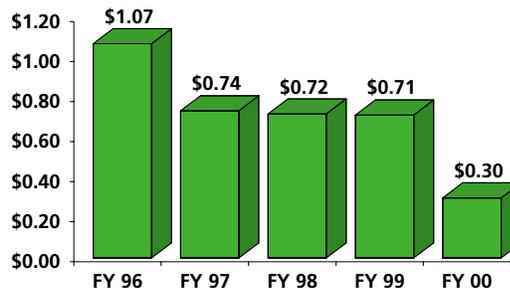
increases also reduce the amount of funds required from taxpayer-funded disaster relief for uninsured flood losses.

Insurance-In-Force From FY 1996–2000 (In Billions)



Fewer uninsured losses mean less pressure for disaster relief measures that rely on taxpayer funds (from federal, state, and local governments), rather than policyholder premiums.

Paid Loss and Loss Adjustment Expenses FY 1996–2000 (In Billions)



Loss and adjustment expenses in FY 2000 total \$302 million.

FEMA will continue its Cover America II

advertising and public awareness campaign which heightens awareness of floods and informs people about flood insurance coverage.

Section 1313 of the National Flood Insurance Act of 1968 states that the Federal Insurance Administration (FIA) is to make information and data available to the public about the flood insurance program and its coverage and objectives. The Cover America II campaign is helping to accomplish this: between October 1995 and April 1999, awareness of the NFIP increased to 65%, which is a 17% increase.

During FY 2000, the FIA established a logo for the NFIP to help meet the Cover America II campaign goals to increase awareness of flood insurance and the NFIP by 4% a year; improve attitudes about flood insurance and the NFIP; and help FIA meet the annual flood insurance sales goals. This logo has also helped establish a foundation for the campaign, and integrate the campaign components of paid advertising, co-op advertising, and public relations.

National Flood Insurance Program advertising efforts include: commercials on national television; print ads

targeting consumers, insurance agents, and lenders; direct mail targeting consumers and insurance agents; and the Yellow Pages. The current television spots and media strategy were designed to help increase awareness of the NFIP and flood insurance. The print ads, specifically those targeting consumers, are geared to generate responses, and take advantage of television commercials by using the same messages and images. A new Web address: [www.floodalert.fema.gov](http://www.floodalert.fema.gov) is appearing on ads and other campaign efforts. The Web site was developed to reinforce the “Be Flood Alert” message. This address takes people to an animated version of the logo and a link to the existing NFIP Web site.

Additionally, participation by insurance companies and agents in the NFIP Co-op Advertising Program continues to grow. This program gives NFIP insurance industry partners a way to tie into the national campaign and bring the national message to local areas. Further, television and radio public service announcements were produced, distributed, and aired by nearly 90 television and radio stations across the country.

**Program General Goal:** *Create and reinforce existing partnerships; and implement an outreach, information, and coordination program that assure regular, effective communication with those concerned about the NFIP.*

**Program Emphasis:** *Positive responses to NFIP assessment instruments and constructive support in pursuing insurance sales and other goals.*

**Program Performance:** As part of its ongoing efforts to achieve higher levels of Program effectiveness, the NFIP activities included the following:



Raging waters inundated businesses in a small North Carolina town.

- A nationwide “Call for Issues Report” was finalized and placed on the FEMA Web site on May 31, 2000, and provides the status of FEMA’s response to all 739 issues received from 173 respondents. Printed copies were sent to all respondents as thanks for their efforts and were made available for other interested parties in August 2000. In June 2000, the FIA completed its review of the insurance related issues and published a status report. The report is available at <http://www.fema.gov/nfip/calliss.pdf>.

- The re-writing of the Standard Flood Insurance Policies (SFIP) was completed in FY 2000 and OMB approved the final rule for publication. The policies, developed in “plain language,” have an effective date of December 31, 2000. The rewritten policies respond to the need to furnish four million policyholders with an easy-to-read policy as well as a policy that is organized like the more familiar homeowners policy.



It will take a long time for these homes to recover from flooding.

**Program General Purpose:** *Make revisions to enhance the financial soundness and equity of the NFIP Program.*

**Program Emphasis:** *Complete development of required studies, analyses, legislative and regulatory proposals and processes required for implementation of the program, e.g., studies of alternative coverage and rates, and approval/acceptance of key products needed for implementation to pursue measures designed to enhance the financial solvency of the program.*

**Program Performance:** The FIA developed a discussion document with a set of recommended alternatives for reducing the subsidy enjoyed by pre-Flood Insurance Rate Map (FIRM) policyholders. To help refine the recommendations, FIA conducted a series of meetings with interested internal



Elevating these homes could have helped to reduce or prevent damage.

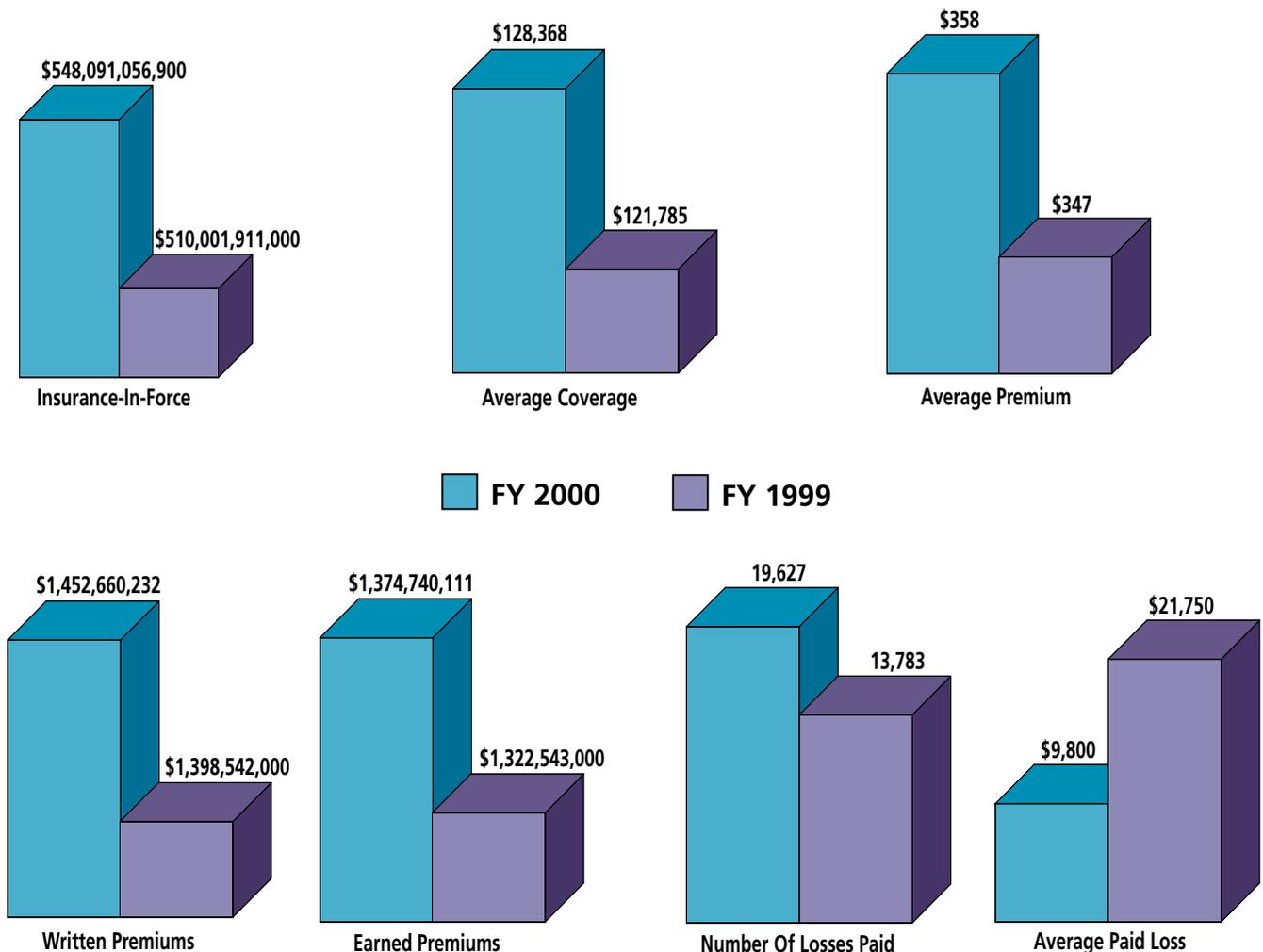
and external groups, including FEMA's Response and Recovery Directorate, the Association of State Floodplain Managers (ASFPM), National Emergency Management Association (NEMA), realtors, lenders, Department of Housing and Urban Development (HUD), Small Business Administration (SBA), and Congressional staff. Concerns regarding low-income property owners prompted the initiation by FIA of further research into how this segment of the population is served by the NFIP.

In FY 2000, the Heinz Center and FEMA released the congressionally mandated study of how erosion affects the NFIP. FIA and Mitigation assigned a work group to develop recommendations for courses of action, with or without additional legislative authorities.

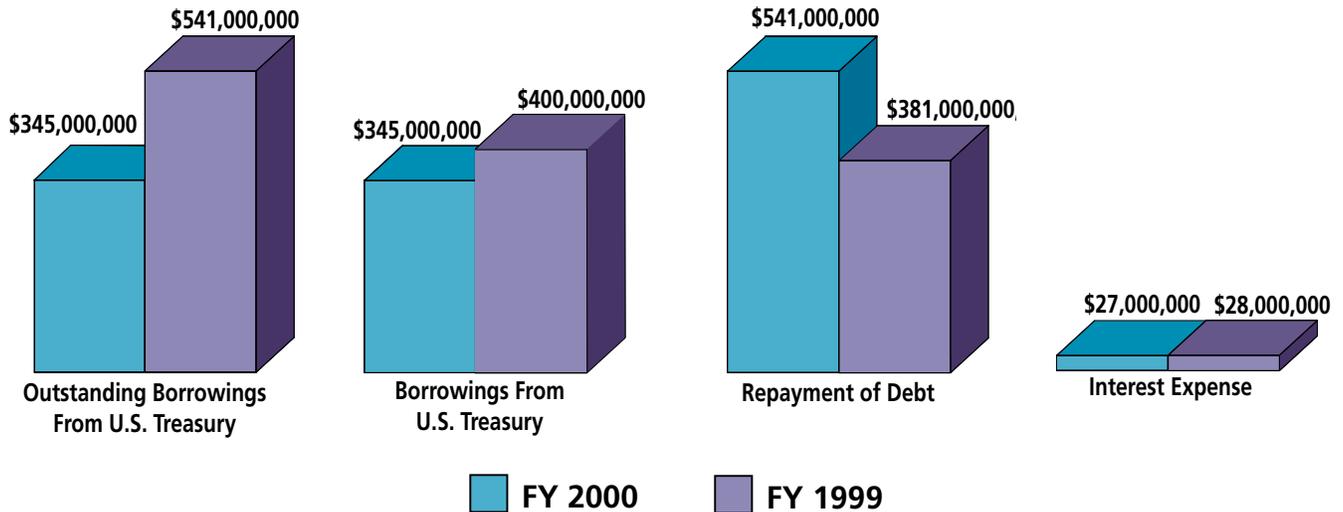
In FY 2000, the financial statement audit of the NFIP for FY 1999 was completed and an unqualified opinion was rendered. The audit for FY 2000 begins the first quarter of FY 2001 and will be completed in the second quarter.

The NFIP is authorized to borrow from the U.S. Treasury up to \$500 million (up to \$1.5 billion with approval from the President). The NFIP borrowed \$345 million during the year and paid back \$541 million to the Treasury. Periodic interest payments are made to the Treasury to pay the accrued interest on borrowings; \$27 million was paid this year. At the end of the fiscal year, outstanding borrowings from the U.S. Treasury total \$345 million—the lowest since December 1995. Financial highlights for FY 2000 are presented in the following graphs.

### FY 2000 vs FY 1999 Financial Highlights



## FY 2000 vs FY 1999 Financial Highlights



### CONCLUSION

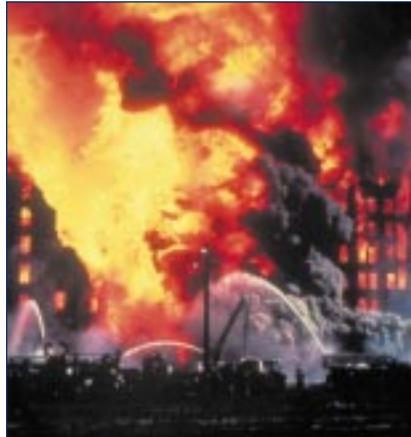
In FY 2000, the Program's outstanding borrowings from the U.S. Treasury is the lowest since December 1995—\$345 million. Through the Cover America II campaign, a new logo "Be Flood Alert" was prominently displayed across the American landscape. The brand builds on the yellow diamond street sign used to warn of upcoming danger. Also, during the year the NFIP policy count increased to 4,269,694. Work continues with NFIP partners, including community officials, insurance companies and agents, lenders, and others to encourage more people to buy and keep flood insurance. All of these program activities are designed by the NFIP to help reduce the likelihood and impact of uninsured flood losses, and reduce the cost of disasters.

# UNITED STATES FIRE ADMINISTRATION

**A**merica's fire death rate is one of the highest per capita in the industrialized world. With rates of 6.5 fires per thousand, and 85 injuries and 14.9 fatalities per million Americans, far too many citizens continue to be killed and injured each year. Ten-year averages for fire loss in the United States are about 1.9 million fires, 4,500 deaths, and 26,400 injuries per year. Additionally, America's fire loss has an extremely high fiscal impact on the economy. Annually, direct property loss from fire is estimated at more than \$9 billion and the total cost of fire to the American economy is estimated to be more than \$159 billion.

America's fire record of the early seventies was dismal. Acting to decrease these tragic losses, Congress established the United States Fire Administration (USFA). Since that time, through public education and awareness, training, research, technology development, data collection and analysis, and partnering with other fire safety interests, the USFA has helped to reduce the fire and death rate of this nation. Ten-year trends of fires, deaths, and injuries all indicate considerable improvements and steady decline in the fire record of this nation. This is shown in the table on the next page. Fires have declined by 13.1%, injuries by 20.2%, deaths by 19.7%, and dollar loss by 18.6%. These improvements are related to providing better public fire safety education, improved fire detection and suppression technologies, increased code enforcement, better public fire protection by the fire service, and improved fire data collection and analysis.

The mission of the USFA, supported by resources of almost \$43 million in FY 2000, is to reduce life and economic losses due to fire and related emergencies through leadership, advocacy, coordination, and support. USFA serves the nation independently,



FEMA will award \$100 million in grants to fire departments across the U.S. to help fight fires such as this.

in coordination with other federal agencies, and in partnership with fire protection and emergency service communities. With a commitment to excellence, USFA provides public education, training, technology, and data initiatives.

## **PUBLIC EDUCATION**

**Program Emphasis:** *Educate the public about fire prevention, targeting groups most vulnerable to fire by increasing the use of public education materials by 4% in the general public, and increase by 20% the number of hotels/motels providing public fire prevention and mitigation information to guests.*

**Program Performance:** In addition to providing fire safety messages for the general public, USFA partnered with both public and private organizations to develop and provide public education programs for targeted at-risk audiences (children, minorities, the elderly and the physically challenged), in a format that would best get the fire safety messages delivered. Over 2,468,320 fire safety education publications were disseminated, a 15.4% increase over FY 1999.

In cooperation with the General Services Administration and hospitality industry groups, USFA worked to enhance the National Master List of Fire-Safe Hotels and Motels. Currently, there are 27,394 properties on the Master List, an increase of 4,394 or 19.1% over FY 1999. An extensive outreach effort to hotels, motels, and hotel chains was conducted. USFA developed new software to identify unlisted hotels and motels in the U.S. and to keep track of those facilities requesting to be added to the Master List. The National Master List, located on the USFA Web site, receives over 30,000 hits per month from 7,000 visitors, and is available to the general public so that they can stay in fire safe accommodations while traveling with their families.

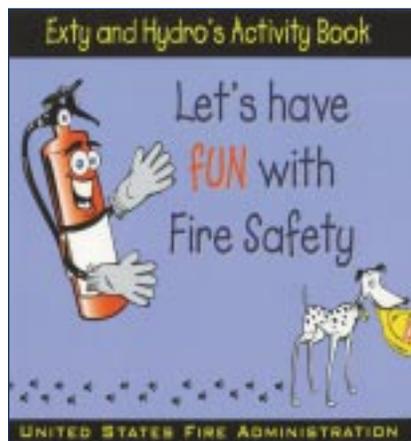
## The National Fire Problem

| Year | Fires     | Deaths | Injuries | Direct Dollar Loss<br>In Millions |
|------|-----------|--------|----------|-----------------------------------|
| 1990 | 2,019,000 | 5,195  | 28,600   | \$9,385                           |
| 1991 | 2,041,500 | 4,465  | 29,375   | \$10,906                          |
| 1992 | 1,964,500 | 4,730  | 28,700   | \$9,276                           |
| 1993 | 1,952,500 | 4,635  | 30,475   | \$9,279                           |
| 1994 | 2,054,500 | 4,275  | 27,250   | \$8,630                           |
| 1995 | 1,965,500 | 4,585  | 25,775   | \$9,182                           |
| 1996 | 1,975,000 | 4,990  | 25,550   | \$9,406                           |
| 1997 | 1,795,000 | 4,050  | 23,750   | \$8,525                           |
| 1998 | 1,755,500 | 4,035  | 23,100   | \$8,629                           |
| 1999 | 1,823,000 | 3,570  | 21,875   | \$10,024                          |

The National Fire Safety Campaign Grant Program provided funding to grass roots groups, fire departments, and to other established organizations to assist them in their current fire prevention/reduction educational initiatives for high-risk groups. Grants in the amount of \$25,000 were awarded to 11 organizations. Examples include the Delaware Children's Fire Safety Foundation, Wilmington, DE, for teaching fire safety in elementary schools and providing a fire safety curriculum for teachers; and the Spokane, WA, Fire Department, for expanding Target Fire Safe, an interagency partnership to reduce fire loss and burn injuries among low-income families, the elderly and high risk youth.

USFA continued to provide technical assistance to the For A Safer America Coalition and its fire safety program for children *Be Cool About Fire Safety*. This year's accomplishment is a fire safety video aimed at children ages 8-12. The video is in

rap format, and has received rave reviews from educators and children in this age group. It was shown on TV networks starting in October 2000. Public Service Announcements (PSAs) will be made from the video, stressing such ideas as careful cooking, smoke detectors, and home fire escape plans. The PSAs will be distributed to TV networks, children's shows, fire departments, and educators.



One of the many campaigns aimed at children to promote fire safety.

USFA continued to support the National SAFE KIDS Campaign (NSKC) with technical advice and funding. NSKC works through nearly 300 state and local coalitions. These coalitions, made up of fire service, public, health, police and other public agencies, and civic-minded businesses, decide what child safety problems need attention in their communities, and go to work on them. Ninety-three of the coalitions have fire safety programs. In one year, these coalitions distributed and installed almost 20,000 smoke alarms. Six months later, a follow-up

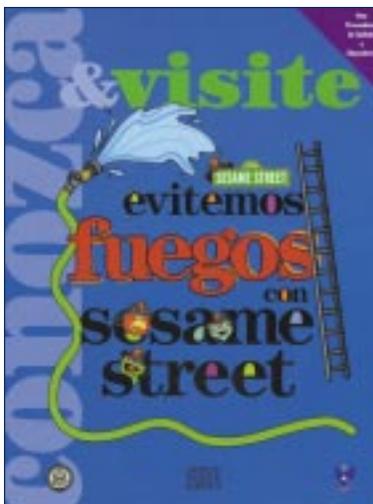
survey showed 91.5 % of these detectors were still working. They were credited with saving 19 lives! NSKC also gave out 24 small grants to state and local coalitions to help fund their own local fire safety programs.

USFA worked with the Indian Health Service (IHS) and Head Start to bring fire safety education to various reservations. The project, called *Sleep Safe* was operating on seven reservations. The project brings smoke alarms to families with young children, and goes into the home to make sure the alarm is installed and maintained properly. The Head Start workers also look for various hazards in the homes, and teach fire safety to parents and caregivers. When fully developed, this program also will be replicated with other Native American groups.

USFA joined in a partnership with the National Fire Protection Association (NFPA) in FY 2000 to help sponsor Fire Prevention Week 2000. Through this partnership, that also included Lowe's Home Safety Council, the United States Automobile Association Educational Foundation, and KIDDE Safety, a consolidated message on fire safety was delivered through Lifetime Learning Systems' *Weekly Reader* to millions of elementary school children, their teachers and parents. In addition, Web site links among all of the above organizations were made available for children and their caretakers to learn more about fire safety.

USFA released the Fire Risk Series reports on special populations. The reports titled, *Fire Risks for the Older Adult*; *Fire Risks for the Blind or Visually Impaired*; *Fire Risks for the Mobility Impaired*; and *Fire Risks for the Deaf or Hard-Of-Hearing* resulted from the "Solutions 2000" symposium held in the spring of 1999. Over 7000 copies of these reports were distributed through USFA Publications.

Since the early 1990's, USFA has been given the opportunity to participate as a major partner in the National Wildland Coordinating Group (NWCG), an organization by



Programs aimed at children to promote fire safety are produced in multiple languages.

which a wide variety of public education, mitigation and response initiatives are coordinated by various federal and state agencies who's efforts contribute to the reduction of the impact of wildfire on the American public. As part of this partnership, USFA participates in NWCG's Wildland/Urban Interface Working Team, which is tasked with the development and implementation of education and awareness programs. These programs are designed to provide the general public and local officials with a basic understanding of appropriate wildland/urban interface fire prevention and mitigation initiatives for the home and community at large. These efforts have evolved into the program know as *Firewise*, a concerted effort to bring property owners, developers, city planners, and other local officials together to discuss the issue of preparing communities in the prevention and mitigation of potentially catastrophic wildfires that continue to plague our nation.

Beginning in 1998, USFA began to revise its current master-planning model. This has included a review of the model, its process and scope, and supporting methodology in partnership with the Insurance Services Office (ISO), American Planning Association, International City/County Managers Association, and International Association of Fire Chiefs (IAFC).

As part of its revision of the fire defense master planning model, USFA has partnered with the IAFC to develop a community fire risk assessment software tool. Known as Risk, Hazard and Value Evaluation, the program is designed to serve as a stand-alone program or may be used in conjunction with USFA's revised master planning program or IAFC's accreditation program.

As part of its role in community fire risk management, USFA participates with others on the Committee on the Organization and Deployment of Career Fire Departments to develop the proposed NFPA 1710 standard. The Committee was tasked with the development of a national standard that identifies acceptable



The year 2000 saw many wildfires in the Western states.

organizational and deployment resources for communities served by substantially career fire departments.

USFA continued to support FEMA's comprehensive hazards mitigation program, *Project Impact*. This role has expanded to include an "in-house" USFA *Project Impact* Team. The Team's role is to further instill the principles of hazard mitigation into much of its curriculum and related fire mitigation and prevention programs. In addition, a primary role for the Team is to insure local fire services are given the opportunity to play a role in the development of *Project Impact* initiatives within their respective communities.

As part of its continual assessment of its programs, USFA has recently undertaken an initiative which will measure the effectiveness of public fire safety education programs. The initiative is an in-depth and comprehensive review of various public education programs and their effect in reducing losses including deaths and injuries due to fire through the measurement of behavioral changes of specific target audiences.

For the past 2 years, USFA, in conjunction with the Institution of Fire Engineers, U.S. Branch, and John Jay College of Criminal Justice, Department of Public Management, has sponsored an annual fire service conference at the Fire Department Instructors Conference (FDIC). The theme of the annual event has included a wide variety of public fire service related topics including community fire defense planning.

Due to similar missions and goals, USFA and the National Association of State Fire Marshals (NASFM) continue to partner in a wide variety of fire protection related initiatives. In recent years, this has included providing technical assistance and educating NASFM's membership and others in topics such as the Hotel and Motel Fire Safety Act, College Campus Fire Safety Program, Fire Fighter Safety Study Act, Performance Based Codes Seminars, and the National Fire Incident Reporting System (NFIRS).

On June 19, 1996, President Clinton announced the National Arson Prevention Initiative (NAPI), in response to a series of arson fires in our nation's houses of worship. FEMA, in partnership with the U.S. Department of Housing and Urban Development, the U.S. Department of Justice, and the U.S. Department of the Treasury, is focusing on raising public awareness about how arson fires can be prevented, providing resources to assist these

efforts, and on the coordination of public and private sector resources to support the development of community-based arson awareness and prevention activities across the nation.

NAPI continues to create coalitions and provide communities with the tools and technical assistance to battle arson. Six communities received \$16,000 in FY 2000 to build community-based coalitions and combat arson at the grassroots level. They were Marshalltown, IA; Worcester, MA; Page, AZ; Bridgeport, CT; Ann Arbor, MI; and Harrisburg, PA. Each community targets a specific issue. Other challenges include initiating church watch programs, the boarding-up or demolition of vacant and abandoned buildings, developing stricter code enforcement, and arson awareness programs.

The National Arson Prevention Clearinghouse was established to provide public education materials and coordinate technical assistance requests from communities. Accessible by a toll-free number 1-888-603-3100, the Clearinghouse has reached over 3.5 million individuals, organizations, and communities with arson awareness and prevention materials since its inception in 1996. Working through the National Council of Churches, the Congress of National Black Churches and others in the faith community, thousands of houses of worship have been reached with arson prevention pamphlets and brochures. Materials distributed through the Clearinghouse include church and other structure threat assessment and fire safety documents, juvenile firesetter intervention brochures, public education materials including bumper stickers, and community organizing and coalition building guidance. The Clearinghouse sends out more than 500,000 packets annually.

USFA delivered the pilot offering of the *Extinguishing Youth Firesetting* class from September 25-29. The charter class was comprised of twenty-nine students and an instructor representing fourteen states. The 5-day class provides general basic information about juvenile fire setters and intervention strategies. The course develops skills in interviewing and assessment, program development, implementation and evaluation. The target audience for the class includes practitioners who interact with children who are involved in firesetting and/or arson behavior and their families. Professionals from a myriad of fields including mental health, law enforcement, education, counseling services and social services can benefit from the training.

During the first week of May, NAPI sponsored National Arson Awareness Week for the third consecutive year in cooperation with other partners such as the International Association of Arson Investigators. *Target Arson*, the national public education campaign that has surrounded each week, encourages communities to become involved in the solutions to their arson problems. FEMA created an umbrella public education effort that targeted television, radio, and print media nationwide with the week's message.

During Arson Awareness Week, NAPI sponsored a seminar called *Community Awareness: Child Firesetting and Juvenile Arson*. Nationwide, the seminar highlights best practices and teaches participants how to replicate these programs. This seminar was designed to create an awareness to the community's fire service, law enforcement and education personnel of the seriousness and magnitude of the child fire setting and juvenile arson problem that exists nationally, and in their local area. The program informed the community-at-large to better understand children's perception, use and misuse of fire. It focused on motivating the community to form a community based effort, involving all necessary services, organizations, agencies and individuals that, in working together can make a difference. The audience for this successful presentation included fire service officers, law enforcement officials, childcare agencies and USFA staff.

NAPI, working the National Volunteer Fire Council, sponsored three *Arson Detection and Prevention in Rural Communities* seminars, intended for members of volunteer fire departments responsible for arson prevention and investigation.

USFA, through the NAPI office, is an active member of the National Church Arson Task Force (NCATF). NCATF is comprised of members of various agencies including: Treasury's Bureau of Alcohol, Tobacco and Firearms (ATF); Federal Bureau of Investigation (FBI); Department of Housing and Urban Development (HUD); and the Department of Justice. The NCATF assists communities where a bombing or arson fire has taken place at a place of worship.

## TRAINING

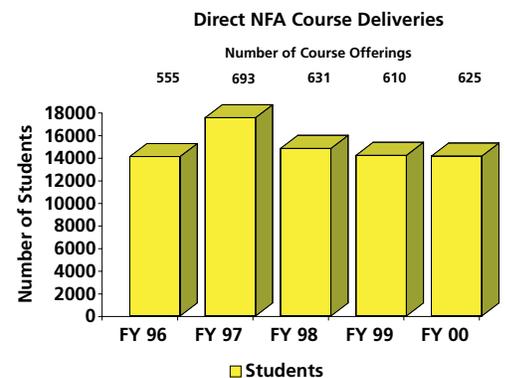
**Program Emphasis:** *Provide training and education opportunities for the nation's fire protection community.*

In keeping with the National Fire Academy's long-term training target of reaching 300,000 specialized or high-ranking fire service personnel (25% of approximately 1.2 million firefighters), performance will be indicated by the delivery of approximately 676 traditional courses, reaching 16,750 students in 76,419 student days; and increasing numbers of students reached through new, technology-based approaches.

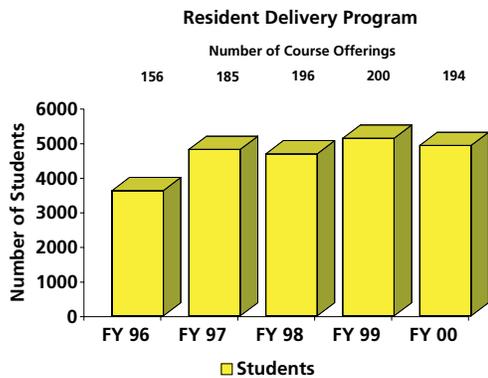
**Program Performance:** NFA provided a grand total, through all delivery methods, of 1,163 course offerings reaching 39,273 students, a decrease of 19 offerings and 13,327 students from FY 1999. The significant differences resulting in this decrease are addressed in the specific delivery areas. We maximized participation through three different delivery modes.

The first is the traditional method where NFA provides the instruction directly to the students and is responsible for all the costs associated with the delivery. This includes resident deliveries, the Volunteer Incentive Program, and regional deliveries. This method accounted for 254 course offerings to 6,234 students. The second method of delivery is done in conjunction with state and local sponsors who share cost of delivery. This includes the State Weekend Program and direct field deliveries, which accounted for 371 course offerings to 7,913 students. The total of both methods is shown just below, and specific categories follow.

Resident delivery refers to training using courses in the resident curriculum delivered at the National Emergency Training Center campus in Emmitsburg, MD. NFA resident courses are typically two weeks in length, although course lengths may vary.

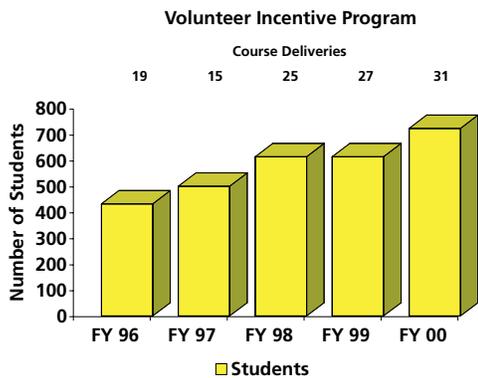


NFA's resident courses offer educational opportunities for the advanced professional development of mid-level and senior fire and emergency medical services officers and allied professionals involved in fire prevention and life safety activities. These



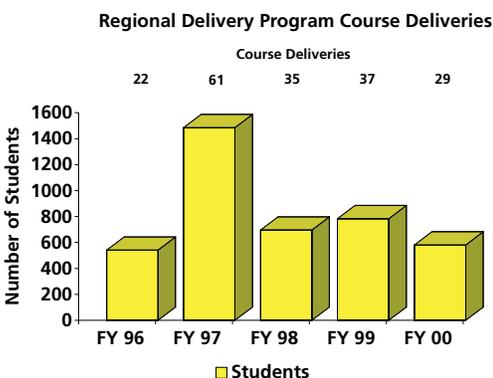
resident courses often contain a variety of hands-on labs, require research papers or presentations using materials from the Learning Resource

Center or the Internet, and provide a wide range of student networking capabilities both within and outside of class. In FY 2000, 194 course offerings were conducted, with 4,927 students trained, resulting in 41,503 student days, close to the capacity point.



Another aspect of the resident program is the Volunteer Incentive Program (VIP). The VIP is an intensive six-day educational opportunity

designed specifically for the volunteer fire service officer and conducted on the Emmitsburg campus. The Academy has compressed two weeks worth of course work into six days, tailoring it to the special needs of the volunteer fire officer, while maintaining content, quality, and integrity. In FY 2000, 31 courses were conducted with 726 students trained producing 4,356 student days of instruction.

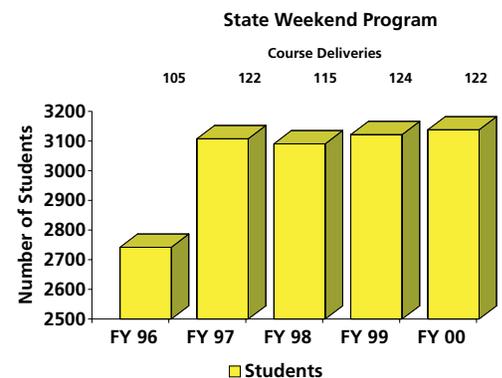


The Regional Delivery Program offers the same one- and two-week courses normally taught at the NFA facility. The NFA's Training

Resources and Data Exchange (TRADE) network, which operates within the 10 FEMA regions, provides the structure through which regional deliveries are offered. Students who participate in Regional Deliveries have the opportunity to meet and exchange ideas and information with colleagues from throughout their region in an informal setting outside the classroom. In FY 2000, 29 courses were conducted and 581 students trained, resulting in 3,528 student days. The fluctuation in the number of course deliveries was due to the arson prevention grant funding.

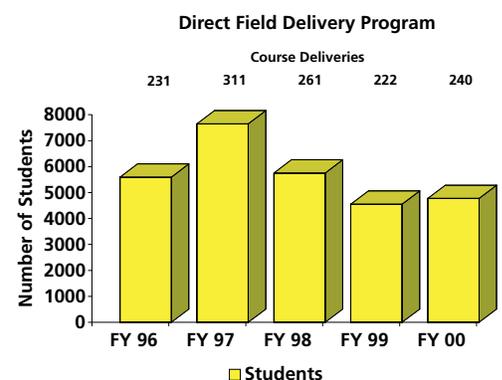
As stated previously, the second method of delivery is done in conjunction with state and local sponsors who share the cost of delivery. This includes the State Weekend Program and direct field deliveries, which accounted for 371 course offerings to 7,913 students.

The State Weekend Program offers the same two-day courses that are delivered in the field during designated weekends at the NFA.



By offering these courses on weekends, students have additional opportunities to visit the campus to participate in Academy courses. In FY 2000, 122 courses were conducted and 3,138 students trained resulting in 6,276 student days of instruction.

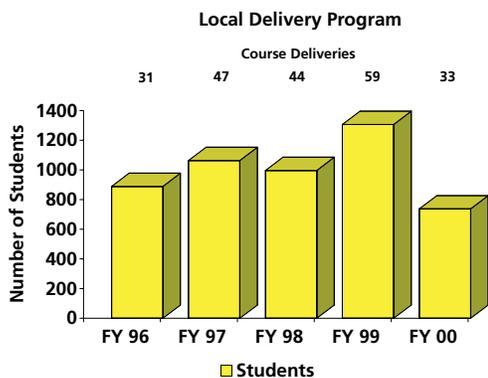
NFA's Direct Field Delivery Program is based on the concept of a strong program delivery linkage, shared cost implementation, and extensive leverage for maximum impact at the local level. Direct delivery courses are short-term, intensive training experiences, designed to provide



maximum opportunity for student participation near their home departments. The courses are 16 hours in duration, and usually offered on weekends to accommodate volunteer, career, and allied professionals who may find weekday attendance difficult to schedule. In FY 2000, 249 courses were conducted with 4,775 students trained in 9,585 student days of instruction.

The third method of delivery is the indirect method where the NFA develops the course materials, and they are delivered by state and local fire and rescue training agencies or used independently. This method includes local deliveries, hand-off deliveries, independent self-study, and college deliveries. This method accounted for 538 course offerings to 25,126 students, and produced 42,159 days of instruction. The following provides specific results.

Local delivery refers to the delivery of selected courses through state and local training systems. The one- and two-week courses being delivered were, or are, part of the resident program and are delivered in conjunction with state and local fire training agencies to reach more individuals. These courses have not been handed off and delivery is controlled by the Academy.

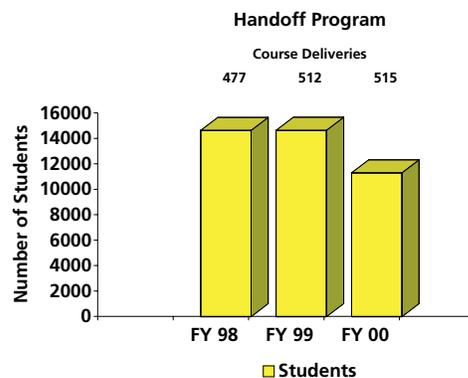


In FY 2000, 33 courses were conducted, with 738 students trained and 6,443 student days of instruction. This is a decrease of 26 offerings, 569 stu-

dents, and 4,082 student days from FY 1999. Most of these decreases were in the number of hazardous materials courses being delivered by the local delivery systems. The three hazardous materials courses have been available for several years and are in need of updating and revising, thus the decline in offerings. *The Chemistry of Hazardous Materials* course is currently under development.

Handoff delivery refers to dissemination of course materials to state and local training systems, and is the culmination of the Academy's State Delivery outreach effort to provide supplemental curriculum

support to existing state and local fire training and education programs. In FY 2000, 505 course offerings were conducted, with 11,328 students trained, producing



22,656 student days of instruction. This is a net decrease of 7 offerings, 3,329 students, and 6,157 student days. In FY 2000, there were 109 offerings of new courses, producing 2,138 students and 4,276 student days. This is offset by a significant reduction in the number of offerings of the *Emergency Response to Terrorism: Basic Concepts* course. The need for a basic concepts course has shifted to the need for an operational level course package. NFA released the *Emergency Response to Terrorism: Tactical Operations* series in late FY 2000. Based on the late release date, we anticipate an increase in delivery activity again in FY 2001.

Independent study refers to self-paced learning. The NFA offers several independent study courses in a variety of topical areas. In FY 2000, 13,060 students were trained, resulting in 13,060 student days. This is a decrease of 9,346 students and 8,886 student days from FY 1999. Although the interest in the *Emergency Response to Terrorism: Self-Study* course seems to have declined, NFA will continue to work with the FEMA Home Study Program to ensure that all interested persons receive their course materials and certificates.

NFA piloted and launched an Internet-based home study software application that allows students to register for home study courses, download course materials, and take the final test online. The first course, *Fire Service Supervision: Self-Study*, was opened to students on September 1. During the first month, 180 students passed the course and received an NFA Certificate of Completion.

A one-day *Performance-Based Fire Safety Design Workshop* was conducted at NETC on August 23, 2000. Over 100 fire and building code enforcement officials attended from the mid-Atlantic region of the country. A total of nine workshops were conducted. The workshops were developed and will be present-

ed by the Society of Fire Protection Engineers through a grant from USFA. The Society of Fire Protection Engineers formed a partnership with the International Code Council and the International Fire Marshals Association to promote the workshops.

The *Comprehensive Haz Mat Emergency Response-Capability Assessment Program (CHER-CAP)* pilot workshop was held at NETC on August 23-24, 2000. A group of 30 federal and non-federal emergency responders attended. The attendees were primarily NFA contract instructors who are being trained to assist FEMA regions in conducting the CHER-CAP process.

Supporting the resident delivery system at the NFA is the Simulation Laboratory, which provides simulation training in command and control and tactical incident operations, as set forth by the incident command system. The laboratory is configured to afford candidates "real-world" training in a variety of emergency situations, encompassing incidents such as dwelling fires, commercial and large structure fires, catastrophic disasters and major emergency events, such as hazardous materials releases and mass casualty incidents.

Computer generated three-dimensional and two-dimensional models provide the candidate with a variety of visual and auditory cues, which will enhance the decision making process in practical situations.

At present, nineteen computer-enhanced simulations used to support NFA Command and Control courses have been completed. Several more are under development at this time. Also, several computer based training (CBT) scenarios are under development. The tutorial compact disk for the CBT's and the Incident Command Self-Study compact disk have been completed. Future plans call for joint transmission of NFA and Emergency Management Institute training to remote sites. Personnel who have attended this NFA training have reported how beneficial it was in the successful management of significant events in their local jurisdictions.

The NFA Training Evaluation Center continued its systematic study of resident course students and their supervisors to determine training effectiveness. During the program year, 603 students and 573 supervisors returned completed surveys that were mailed to them 4 months after students completed a resident course at the Academy. Their responses indicated that students were able to transfer their training skills and learning to the job. Ninety-five percent of students surveyed were able to apply

NFA training when they returned to the job, and 90% say that NFA training improved their job performance. Also, 93% of students shared their NFA training with their peers, with about 20% actually holding formal training sessions in their departments.

Some 71% of students surveyed left NFA with plans to establish new policies or procedures when they returned to the job. Of that group, 78% actually did so, with most of them (84%) indicating that the new policy or procedure improved the way the department did business. The conclusion is that students who leave NFA with a clear, well-thought out plan to develop a new policy or procedure have about a 4 in 5 chance of getting it developed and implemented.

Supervisors of the surveyed students in FY 1999 were positive about the effects of NFA training on their employee and on the department. Over 88% of responding supervisors indicated that NFA training had improved the employee's job performance, while 87% thought that the training would improve the department's performance as well. Nearly 98% of supervisors would recommend NFA training for others, and 93% said that the benefits of NFA training outweighed the costs. Supervisors indicate that students return from NFA training with a heightened sense of commitment, a clearer perspective on local problems and a network of peers who support their efforts to improve service delivery.

Beginning in January of 1999, NFA began to collect end-of-course data on the resident training experience using a new survey instrument that captured enhanced demographic data along with data on how students access information about NFA training courses. Over the past 2 years, the data clearly show that more than half (50.8%) of students applying for resident courses access such information via the World Wide Web.

A new section was added to the USFA Web site for NFA contract instructors and those interested in becoming an instructor. The NFA Contract Instructor Web site contains information on all instructors eligible to teach NFA courses and provides those instructors with access to bid packages and award information. The Web page also contains information on how to become an NFA contract instructor.

A project began in FY 2000 to scan and convert Executive Fire Officer Program applied research projects submitted by students to electronic format for fire researchers to access on the USFA Web site and through the Learning Resource Center Online Card

Catalog. Two hundred thirty-two papers were initially scanned for the FY 1998-1999 academic year.

NFA has improved the way that it provides services to State Fire Training Systems (SFTS). SFTS identified their needs as: 1) increase the amount of NFA training delivered locally, and 2) increase the number of NFA courses available. The changes are described below:

- **Enfranchisement**—States are viewed as partners with the NFA, and as such, may deliver two-week and six-day NFA residential courses in addition to the current deliveries available to them. Enfranchisement establishes that SFTS are extension of the NFA in their state. As such, SFTS are enfranchised to deliver most NFA courses using NFA instructors. The release of two-week residential courses to states is proposed to be three courses per year, because of duplication costs and course development timelines. States will report student participation in all courses for inclusion in the NFA database. Students will receive NFA residential course certificates.
- **Endorsement**—States have a need for courses that the NFA cannot develop because of time constraints, the number of courses they say they need, and subject matter or resource constraints. Endorsement recognizes that some state-developed courses are the equivalent of an NFA course in both quality and content. The NFA and SFTS have agreed upon a set of criteria and a process to have a state course endorsed as an NFA course. Once a course meets the established criteria, it becomes an NFA “endorsed” course, which are NFA courses delivered locally by local instructors. Students in NFA endorsed courses are registered in the NFA student database, and may receive a NFA certificate. Endorsed courses will be available for distribution to other states that may not have adequate resources to develop a course.
- **Two-Day Course Delivery**—After two-day courses are developed, they may be delivered as Train-the-Trainer (TtT) courses without the traditional two-year field delivery assessment phase. TtT participants will receive a CD-ROM with the Instructor Manual, Student Guide, test bank, handout materials for on-site printing, and appropriate audiovisuals. The CD will also include a program that will allow instructors to upload the student data via the Internet to the NFA student database. Once in the database, the new admissions system can immediately download the NFA certificates to the instructor

for distribution to students. Newly developed two-day courses will be reviewed after approximately 18 months of delivery.

FY 2000 marked the initial start-up of the USFA’s Critical Infrastructure Protection Initiative. Based on Presidential Decision Directive 63, FEMA was tasked to work with the fire and emergency services sector to provide information to help them protect their critical infrastructure systems. Specifically, USFA has taken the lead in creating a clearinghouse activity to research, collect and disseminate critical physical and cyber protection information that will help the fire and emergency service community assess their vulnerabilities and readiness capabilities.

NFA offered direct grant assistance to each of the 50 SFTS for the purpose of delivering additional NFA courses and collecting the enrollment data from the training deliveries. Eligible categories of NFA courses included: hand-off courses, revised incident command system (ICS) courses, and select resident (ten day), regional (six day) and direct delivery (two day) courses. The response from the SFTS was overwhelming, and should continue through FY 2001.

In August 2000, NFA staff developed a minority instructor recruitment program with specific strategies designed to increase the representation of women and people of color as NFA instructors. Among the strategies was a recommendation for the Superintendent to visit large fire departments (with higher numbers of minority people represented in the fire department staff) to meet with their staff to encourage minorities to apply for teaching opportunities.

## **TECHNOLOGY**

**Program Emphasis:** *Conduct a continuing program of development, testing, and evaluation of equipment, practices, and technology for use by the nation’s fire and emergency services by increasing by 4% the use of USFA’s fire mitigation materials at the federal, state and local levels; and increased fire community knowledge of fire and technological hazards and the application of mitigation technologies by increasing distribution of research reports.*

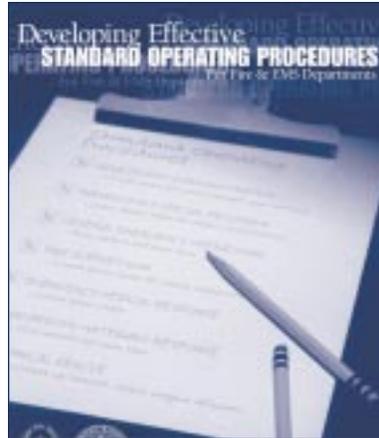
**Program Performance:** USFA, along with the National Institute of Standards and Technology (NIST), conducted a series of separate workshops to provide USFA input and recommendations from the fire service and emergency response community;

non-fire service constituent organizations such as trade associations, building code organizations, the fire protection engineering profession, private sector fire researchers, etc.; and federal partners in fire research to develop research priorities to address those needs in response to the Congressional mandate that USFA develop a fire research agenda. Reports from these workshops have been distributed to stakeholders and partners for confirmation and support of national-level fire research needs.

USFA and NIST continued the project effort initiated in FY 1999 to conduct research on performance enhancement of PASS devices that could enhance firefighter safety in operational situations. These include enhancements in elimination of false activations, accuracy, tie in with Global Positioning Systems, thermal exposure, exposure to liquids, and ease of use. Numerous firefighter deaths have occurred from being lost or trapped in structure fires.

USFA initiated a project to revise and update its 1992 USFA document *Guide to Developing and Managing an Emergency Services Infection Control Program*. Since then, there have been changes in the field of emergency services infection control such as the development of better technology (i.e. ambulance air filtering systems, protective clothing, and self-capping needles), OSHA regulations, increased acts of intentional infection (i.e. hiding needles where responders may be intentionally stuck), and exposure to biological agents. This update and revision would provide support to USFA efforts in firefighter health and safety.

USFA and NIST performed research into structural collapse prediction technology on the fire ground. Tests examining older style construction were conducted, and a number of computer-based models for predicting the impact of fire on buildings, occupants and firefighters were developed. Typically, the models predict the spread of the fire and its products of combustion. NIST has been investigating the use of new measurement technologies in the fire environment for the prediction of structural collapse including the use of thermal imaging technology to measure temperature, lasers and sonar to measure displacement, and ultrasonic devices to predict the



This publication will assist emergency service managers to establish clear, effective standard operating procedures.

onset of collapse. This project will develop information and technology for use by firefighters to predict structural collapse during fire ground operations. Every year firefighters are killed as a result of unexpected structural failure.

In FY 2000, USFA released several new publications that were part of a targeted distribution to requesting local-level fire departments and emergency response agencies, including:

- *Developing Effective Standard Operating Procedures for Fire & EMS Departments* is designed to assist emergency service managers in establishing effective standard operating procedures within their

organization. It serves as a valuable resource for personnel seeking a clear understanding of operational issues, and will facilitate compliance with current laws, regulations, and standards related to the emergency services.

- *Hazardous Materials Response Technology Assessment* is designed to familiarize readers with various technologies that are available (and in development) that a fire and/or rescue department could use to control and mitigate a hazardous materials incident. It also provides concepts, terminology, and key considerations that may help in the management of incidents of hazardous material contamination.
- *Personnel Accountability System Technology Assessment* is designed to focus attention on the issue of personnel accountability. Personnel accountability is an effort to improve the safety of emergency responders by keeping track of their locations and assignments when operating at the scene of an incident.
- A revision to *Funding Alternatives for Fire and Emergency Services* providing updated information to fire and EMS departments on locating and implementing both traditional and nontraditional local, state, and federal government funding sources or methods.

In FY 2000, 155,838 publications were distributed, a 43.1% increase over FY 1999.

As a result of Congressional directives, USFA initiated the National Smoke Detector Pilot Project which focused on the installation of a total of 100,000 smoke detectors in 20 communities at high risk for

residential fires. Representatives of these communities were trained by the NFA in proper smoke detector installation. Guidance was provided on the data that needs to be obtained locally, and other administrative requirements. These local representatives were also provided with fire prevention materials, including materials in Spanish and English focusing on this project. This material is intended for occupants of the homes in which the smoke detectors are installed. The final report to Congress is due during the 1st quarter of FY 2001.

Through its role in administering and chairing the Federal Interagency Committee on Emergency Medical Services (FICEMS), USFA has supported a continuing exchange of information among agencies with EMS responsibilities and interest. Such dialogue promotes interagency cooperation and helps avoid duplication of effort.

USFA and the National Aeronautics and Space Administration are jointly developing the "Earth Alert" personal warning system, part of which includes a hand-held communication device that allows receipt of information such as map overlays from various sources at the scene, to determine whether it can meet the needs of the fire and rescue community. The object is to define in detail how the "Earth Alert" system can be used to support the requirements of the firefighter community—ranging from a broad variety of fires, a range of scenarios, and a range of hazardous materials response scenarios. A final report is expected in FY 2001.

USFA and NIST continued a cooperative effort to develop measurement equipment and techniques for the evaluation of the thermal environments experienced by firefighters and to examine the thermal protective performance of the firefighter's protective clothing.

The Residential Fire Safety Institute (Operation Life Safety) is a consortium of USFA staff, NASFM, and the private sector. The shared mission is to mitigate the impact of fire on residential occupancies through the advocacy of built-in protection (protection and sprinkler systems) and public education.

FEMA Region VII joined with the U.S. Department of Education in mailing 9,200 of USFA's *Fire Safety Checklists* to every superintendent and principal in the region. This brochure is designed to hang on a door handle. It provides many useful tips to making homes safer from fire. One school district has requested 2000 brochures—one for every student!

## DATA

**Program Emphasis:** *Identify the national fire problem and analyze, publish and disseminate related data and information by 30% of participating states (12) that convert to the new National Fire Information Reporting System (NFIRS) 5.0; get 20% of non-participating states (2) join the NFIRS; post all new publications on the World Wide Web (WWW); publish 4 analytical reports on topics suggested by NFIRS data and the fire service community; and publish an annual firefighter fatality study.*

**Program Performance:** The National Fire Incident Reporting System Version 5.0 (NFIRS 5.0) was implemented for state use in January 1999. By FY 2000, 26 of the 41 states reporting in FY 1998 under the former version, began reporting data in the new format (21 in FY 1999 and 5 in FY 2000). Two formerly non-participating states, Oregon and Mississippi, joined the NFIRS system during this period, increasing the total number of states reporting to 45.

USFA issued the *Eleventh Edition of Fire in the United States, 1987-1996*, a comprehensive analysis of the nation's fire problem heavily based on NFIRS data. In addition, five in-depth special topic reports were produced including a *Profile of the Urban Fire Problem* and analyses of the following at risk groups: older adults, the mobility impaired, the deaf and hard of hearing, and the blind and visually impaired. Publications by the National Fire Data Center address the Congressional mandate for USFA to identify the national fire problem. For 20 years, USFA data has identified the national fire problem as one of individual fire deaths, occurring in private dwellings, and caused primarily by the misuse of smoking materials.

A total of three analytical reports were published: *Establishing a Relationship between Alcohol and Casualties; Multiple Fatality Fire Reported to NFIRS 1994-1996; and Children and Fire in the United States*. And the *1998-1999 Firefighter Fatality Report* was printed, distributed, and posted on the Web site, as was the 1999 final list of firefighter fatalities.

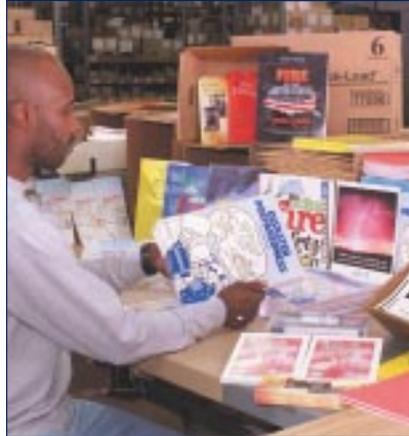
The USFA Publications Center received 68,386 orders for 2.6 million publications, a 194% increase in orders over FY 1999. A total of 87% of publications orders were received through the Web site.

Ninety-nine publications were added to the Web site in FY 2000 bringing the total to 200 on line, almost

double the 1998 baseline. Over 90% of all USFA publications available through the Publications Center are available on line. Many are downloaded and reproduced for local use.

The USFA Web site received an estimated 22.4 million hits in FY 2000 from 1.6 million visitors, almost double the previous year. Two new sections were added to the Web site to describe USFA resources available in the areas of EMS and Wildfire. These resources include training, publications, data, and financial assistance.

FEMA PHOTO BY WILLIAM R. BECKER



FEMA's publications warehouse sends materials to users throughout the country.

## CONCLUSION

The USFA's resources are focused in support of key efforts to address America's unacceptable fire problem. Primary program elements include collection and analysis of national fire data, training of the fire service community, developing and delivering effective public fire safety education messages, and research and technology transfer to improve public and fire fighter survivability in the fire environment. However, USFA's success continues to be magnified through effective leveraging of limited resources by entering into partnerships, joint ventures, and alliances with the private sector and other federal agencies.